School Readiness: Beliefs about Preparing Children for Transition from Pre-primary to Primary Education in China

Školní připravenost: Přesvědčení o přípravě dětí na přechod z preprimárního do primárního vzdělávání v Číně

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Charles University

BY

Shujing Cui

Supervisor: Dr. David Greger

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DECLARATION OF THE ORIGINALITY

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name : Shujing Cui

Signature:

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ABSTRACT

A smooth transition to primary school is positively related to children's later school experience. Continuity among family, Early Childhood Education and Care, and primary school is conducive to successful transition to school. Certain parental school-readiness beliefs and parenting styles, among other factors, contribute to the smoothness of this transition. Therefore, this study compared the school readiness beliefs among Chinese parents, kindergarten teachers and first grade teachers, based on samples drawn from Chongqing, China. 1204 Chinese parents, 245 kindergarten teachers and 133 primary school teachers participated in the current study. Using multi-group confirmatory factor analysis for checking the measurement invariance, this study revealed that kindergarten teachers valued social-emotional competence more than parents. And kindergarten teachers rated items about social-emotional competence significantly higher than primary school teachers did. Besides, this study adopted latent profile analysis to examine the patterns of Chinese parents' school-readiness beliefs. Three profiles were identified: (1) very strong overall emphasis and slightly less academic-oriented; (2) moderate overall emphasis and less academic-oriented; (3) no emphasis and more academic-oriented. Higher socioeconomic status was found to be more likely to be associated with membership in Profile 1 rather than Profile 2. Three subgroups of parents are also identified based on the combination of school readiness beliefs and parenting style, as well as the combination of school readiness beliefs and attitude regarding roles in school readiness. The present study shows quantitative support for Anette Lareau's work and has implications for more targeted parental intervention programs.

Keywords: school readiness, parenting style, parents' school readiness beliefs, latent profile analysis, multi-group confirmatory factor analysis, socioeconomic status (SES**)**

ABSTRAKTNÍ

Hladký přechod na základní školu pozitivně souvisí s pozdější školní úspěšností dětí. Kontinuita mezi rodinou, mateřskou a základní školou přispívá k úspěšnému přechodu. K hladkému průběhu tohoto přechodu přispívají také určitá přesvědčení rodičů o školní připravenosti a jejich výchovné styly. Proto tato studie porovnávala přesvědčení čínských rodičů, učitelů mateřských škol a učitelů prvního stupně o školní připravenosti na základě výběrových souborů získaných z čínského Chongqingu. Této studie se zúčastnilo 1204 čínských rodičů, 245 učitelů mateřských škol a 133 učitelů základních škol. S využitím statistické techniky konfirmační faktorové analýzy pro více skupin a při kontrole invariance měření tato studie odhalila, že učitelé mateřských škol kladou důraz na sociálně-emocionální kompetenci více než rodiče dětí. A učitelé mateřských škol hodnotili položky o sociálně-emocionální kompetenci také výrazně výše než učitelé základních škol. Dále jsem v této disertaci využila statistickou techniku latentních tříd, abych blíže prozkoumala vzorce přesvědčení čínských rodičů o školní připravenosti. Touto metodou byly identifikovány tři skupiny/třídy rodičů: (1) velmi silný celkový důraz na školní připravenost, ale méně akademicky orientovaný; (2) mírný celkový důraz a méně akademicky orientovaný; (3) žádný celkový důraz na školní připravenost, ale akademicky orientovaný. Bylo zjištěno, že rodiče s vyšší sociálně-ekonomickým statusem (SES) patří častěji k 1. skupině. Tři podskupiny rodičů jsou také identifikovány na základě kombinace přesvědčení o školní připravenosti a výchovného stylu, stejně jako kombinace přesvědčení o školní připravenosti a postoje týkající se rolí aktérů ve školní připravenosti. Tato studie s pomocí kvantitativních dat podporuje obecná zjištění v práci Anette Lareau a může být přínosná pro lepší zaměření kompenzačních programů pro rodičovské intervence.

Klíčová slova: školní připravenost, rodičovské styly, přesvědčení rodičů o školní připravenosti, analýza latentních tříd, konfirmační faktorová analýza pro vice skupin, socioekonomický status (SES)

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CHAPTER 1

INTRODUCTION

Successful transition from pre-primary school to primary school lays a solid foundation to child's later school success, which is evidenced by a multitude of studies (Ghaye & Pascal, 1989; Burrell & Bubb, 2000). In China, it has been advocated by policy makers and researchers that family, kindergarten and primary school should collaborate to facilitate child's transition to school (Liu, 2019; MOE of China, 2021). However, to build up the collaborations among these stakeholders, some roadblocks are to be tackled, such as their different beliefs and expectations on child's school readiness, pedagogical understanding discrepancies between kindergarten and primary school teachers, and so on (OECD,2017). As reported in Starting Strong V by OECD (2017), a lack of shared understanding among stakeholders is one of among the most common challenges for smoothing the transition to school. Such challenges were confronted by policy makers in China to facilitate transition to school as well. To shed light on the potential strategies to promote shared understanding and, thus, smooth the transition from early childhood education to school, this study focuses on comparing the school readiness beliefs of parents, kindergarten teachers and primary school teachers in China.

Apart from the policy attention on enhancing shared understanding among parents and teachers, insufficient awareness about the importance of the transition to school and difficulties in enhancing parental involvement in the process are also among the most challenging issues, especially for families from disadvantaged background (OECD,2017). A consolidated body of research reveals that parental involvement contributes to successful transition to school(Polat & Bayindir,2022; Puccioni, 2018; Slicker, 2021). And parental school readiness beliefs could exert an influence on child's transition to school through the mediation of parental involvement, thus, constitute an important indirect impact factor for child's transition to school (Puccioni, 2015). Thus, examining how parents perceive school readiness, especially what patterns of school readiness beliefs parents hold, could be especially useful for more targeted parental intervention program in transition to school. However, very few studies explored Chinese parents' school readiness beliefs from a person-centered perspective. Consequently, the current study tries to delineate the typology of Chinese parents' beliefs on children's school readiness.

Given the fundamental role of the transition to school in child's later school experience, it is a necessity to level the playing field at school entry for children to promote the equality in education. However, disparities of children's school readiness were identified across socioeconomic status (SES) spectrums in many countries including China (Fitzpatrick et al.,2014; Larson et al., 2015; Wolf & McCoy, 2017; Ren et al., 2020). According to the academic socialization model (Taylor et al., 2004), such gaps could be derived partly from variation of parents' school readiness beliefs related to SES, which could result in a gap of parental involvement and children's school readiness. However, very few quantitative studies address the association of parents' school readiness beliefs with SES. The present study explores such association to better understand the source of school readiness gap related to SES and contribute to the education equity in early years.

In general, the current study is focused on the two major research questions. The first question is about comparing the differences of school readiness beliefs among parents, kindergarten teachers and primary school teachers in China. And the second question mainly addresses the delineation of characteristics of subgroups of parents by their school readiness beliefs, parenting style and their attitudes regarding roles in school readiness to better account the complex factors in the family contexts related to children's school readiness. To answer these questions, a quantitative research strategy is adopted in the current study. I surveyed via questionnaires in Chongqing of China to collect representative data and analyzed data mainly by using multi-group confirmatory factor analysis and latent profile analysis.

The major findings of the present study are as follows. Chinese parents, kindergarten teachers and primary school teachers (in Chongqing) hold different school readiness beliefs, which is mainly manifested as the difference in the emphasis on children's social-emotional competence for school readiness. Kindergarten teachers value social-emotional competence more than parents. Likewise, kindergarten teachers rate items about social-emotional competence significantly higher than primary school teachers do. Three subgroups of parents based on their school readiness beliefs are identified, which are *very strong overall emphasis and slightly less academic-oriented, moderate overall emphasis and less academic-oriented, and no emphasis and more academic-oriented*. Higher SES is associated with the profile membership of parents showing *very strong overall emphasis and slightly less academic-oriented* school readiness beliefs. Three subgroups of parents are also identified based on the combination of school readiness beliefs and parenting style, as well as the combination of school readiness beliefs and

attitude regarding roles in school readiness. Implications and future directions are discussed based on the results in current study.

The research presented in this dissertation has been partly published in academic journals. The literature review is published in Orbis Scholae with citation as follows. [Cui, S. J. (2023). Review on Chinese and international research about transition to school. Orbis scholae, 17(1),1-28. Advance online publication. https://doi.org/10.14712/23363177.2023.8.] The other two papers on the research in this dissertation are submitted and prepared for publication.

CHAPTER 2

LITERATURE REVIEW

1.DEFINITION OF TERMINOLOGIES

Two terminologies related to this research topic are “school readiness” and “transition to school”. Both terminologies are employed for discussing the phase that children start school. Unlike school readiness, which is used universally in studies across countries, several terminologies with trivial differences were used in extant literature across countries as equivalent to “transition to school”. The following terms are included, “transition from early childhood education and care to school/ primary school”, “transition(s) to school”, “transition to kindergarten” (mostly used in USA). What’s worth noting, transition to kindergarten refers to transition to school in the USA. Although kindergarten in the USA is classified as ISCED 0, it is typically considered an elementary grade, thus transition to kindergarten stands for starting school in the USA scenario (Stephens et al., 2015). To address the key notions in this study, I choose the terminology “school readiness” and “transition to school” to elaborate their definitions.

1.1 School readiness

Throughout years of research, the notion of school readiness has been properly defined in a narrow and a broader sense. The narrower definition focuses on children’s competences in cognitive, social and emotional as well as healthy domains. However, due to the recognition of the complexity of readiness for schools, researchers advanced a broader definition of readiness and expands the notion from the readiness of children to including also the readiness of schools, families and communities (Ackerman & Barnett, 2005). The broader definition of readiness also led to the attention from children’s readiness to the system of relationships among social context (teachers, parents, preschool care providers, etc), which was considered as a successful predictor of successful transitions (Rimm-Kaufman & Pianta, 2000).

1.2 Transition to school

In the existing literature, definitions of transition to school vary according to the theoretical standpoint of researchers, which mainly include bio-ecological, socio-cultural and ontological theoretical perspective.

Most researchers address the notion of transition based on the theory of ecological system of Bronfenbrenner. For example, Ramey and Ramey (1999) define transition as "an ongoing process of mutual adaptations by children, families and schools to facilitate children moving successfully from home and early childhood education and care (ECEC) settings into the early years of school" (Ramey & Ramey, 1999, p.219).

From the socio-cultural perspective, Rogoff (2003) addresses that transition to schools constitute one kind of transitions across the whole life. People make many transitions across their life span, as they change their role within specific communities. Educational transitions involve changes in role, identity, status, agency as people move into new educational environments. For example, children move from being preschoolers to being school students when they start school.

More recently, based on the literature on transitions from 1990 to 2004, Petriwsky et al. (2005) review that several conceptualizations of transition to school included a set of teacher or school practices, a time limited change event, a continuity of experience, and a multi-layer and multi-year process. The focus of various definitions of transition to school from different theoretical perspectives are elaborated on in the literature review section.

1.3 The relationship between school readiness and transition to school

Transition to school is a construct emerged after school readiness and has been replacing school readiness to some extent (Ramey & Ramey, 1999). However, school readiness was not eliminated in this research field. In contrast, school readiness and transition to school entwine with each other in the existing literature. The narrow definition of school readiness concentrated on the child's competences or readiness for school, namely, "children being ready for school". The broad definition of school readiness converged more with the definition of transition to school and highlighted "school being ready for children". However, most empirical studies focusing on school readiness, especially quantitative studies, adopted the narrow definition of school readiness. Whereas, the empirical studies concerning with transition to school cover a wider scope than those of school readiness and include more actors, such as parents,

communities, teachers and so on. Despite some significant distinctions exist between school readiness and transition to school, they entangle with each other in the extant literature.

Though research questions in this study are more closely related to school readiness, they are embedded in the larger context of transition to school. Furthermore, as transition to school is increasingly and widely accepted in this research field, the studies surrounding two key notions overlap and complement each other. Omission of studies on either topic would lead to a loss of information. Thus, I draw on studies of both school readiness and transition to school to the review the research findings as the foundation of my study.

2. LITERATURE INCLUSION PROCESS AND CHARACTERISTICS OF RESOURCES

As stated above, the two concepts, school readiness and transition to school, entangle with each other in extant literature, I include research surrounding both terminologies in this review to get a comprehensive understanding of existing research findings and gaps. The literature from 2000 to 2021 were searched in Web of Science by title with the following Boolean operator: “school readiness” OR “transition* to school” OR “transition* from ECEC to school” OR "transition* to kindergarten", then the search results were refined within the research scope of psychology development, educational and psychological education research and psychology educational. Additional criteria included also the language as English, finally 432 papers were found (including articles, proceedings papers and book chapters) in Web of Science. Accordingly, Chinese literature was searched in the same timespan by using the corresponding Chinese terms in China National Knowledge Infrastructure (CNKI), the dominant database of Chinese academic papers, including only the publications in the core periodicals and source journals of Chinese Social Science Citation Index (CSSCI). 260 Chinese papers were found in this process.

The following criteria were employed to include, exclude and extend the literature corpus for review both Chinese and English.

1)The study had to be peer-reviewed.

2)The study had to deal with transition to school (ISCED 1) rather than other education level.

3)The study had to be mainstreaming-education-specific, e.g., studies using methods from health science were excluded, also studies about special education were excluded.

4)References of the review papers were tracked and eligible papers were included.

Having read the abstracts of those articles, I excluded 59 English papers and 147 Chinese papers according to the criteria above, and then retrieved 131 English papers and 113 Chinese papers with full-text available for further review. The final literature corpus reviewed includes 11 review papers and 120 primary studies in English, 17 review papers and 96 primary studies in Chinese. Table 1 shows the countries where and the time when the studies were carried out (only journal papers, conference presentations and reports, and book chapters). The references cited in this review did not exhaust all papers reviewed.

Table 2.1 Geographic and chronological characteristic of the paper studies reviewed

	Number of studies reviewed
Country	
USA	71
Australia	11
China	127
Canada	5
England	5
Finland	4
Ireland	4
Iceland	2
Turkey	2
Jamaica	2
New Zealand	2
Portugal	2
Ethiopia	1
Brazil	1
Sweden	1
Australia, Austria, Colombia,	1

Germany, Nicaragua, and Slovenia	
Canada, Australia, Jamaica,and USA	1
Denmark	1
Egypt	1
Germany	1
Scotland	1
Ghana	1
Singapore	1
The Netherland	1
Year	
1999	1
2000	7
2002	1
2003	3
2004	1
2005	6
2006	3
2007	11
2008	10
2009	5
2010	14
2011	9

2012	9
2013	18
2014	17
2015	15
2016	24
2017	17
2018	3
2019	31
2020	12
2021	7

3. REVIEW APPROACH

As mentioned above, in the literature search process, 28 reviews on transition to school or school readiness were found, which summarized findings and identified trends and gaps about the topic. Thus in such scenario, it is necessary to review the extant reviews first before carrying on my own review(Pautasso, 2013). In the existing 28 reviews, major foci of international and Chinese reviews are construct of transition to school or school readiness, theoretical perspectives and synthesis of some empirical findings in a minor scope. Several gaps were to be addressed with new reviews. Firstly, considering the connections between theory and empirical studies, it is necessary to conduct a full review to cover in detail the complexity of both theoretical and empirical research on this topic. Secondly, international reviews need to include the studies in Chinese to enrich our understanding on this topic, which is of interest in the present study.

Consequently, based on the research gaps in existing review and the goal of this study, I reviewed both international and Chinese studies in a comprehensive way. After reviewing the existing review, I read through the primary studies critically and classified the contents according to the themes and the underlying theoretical perspectives identified in the existing reviews. Following such procedures, the present review is finally structured in line with the following thread: construct of terminologies and the underlying theoretical perspectives, school

readiness assessment and children-related influential factors, family-related influential factors, setting-related factors, perspectives of stakeholders and children, and continuity in transition to school. What's note mentioning, the first part concerning with terminology constructs and theoretical perspectives is mainly inspired by Boyle et al.(2018a), as the topic was systematically reviewed in their work. And the remaining parts critically synthesized empirical findings of studies both in Chinese and English.

3.1 Construct of terminologies and the underlying theoretical perspectives

This part addresses the ongoing development of the construct of school readiness, transition to school and the underpinning theoretical perspectives. In the integrative review of transition to school studies by Boyle et al.(2018a), four major theoretical perspectives were identified as developmental, ecological, socio-cultural and critical. Different theoretical perspectives provided distinctive conceptualization of school readiness and transition to school. This part is structured by following the shift of construct of school readiness and transition to school as well as the paradigm shift of the underlying theory.

In general, the conceptualization of transition has been changing over the past decades. According to Boyle et al. (2018b), the construct of transition to school went through the shift from an event to a process, and then to continuity practice. In the earlier times, researchers adopted the term, *school readiness*, to address the issues of school entry and concentrated on child's readiness for school, as research progressed, there emerged a trend to consider the entry to school as a process in the context of the theory of ecological system of Bronfenbrenner (Rimm-Kaufman & Pianta, 2000) and Vygoskian socio-cultural theory (Carlton & Winsler, 1999). Then the term, *transition to school*, was adopted frequently in research and the re-conceptualisation of school readiness focused on continuity of children's experience, partnership with stakeholders and system coherence across extended time periods (Petriwsky et al., 2005). Recently, Boyle et al. (2018b) advanced a new conceptual model to reframe transitions as continuity practices from the ontological perspective (Boyle et al., 2018b).

3.1.1 Transition as an event with the developmental theoretical basis

School readiness of children is the major concern of the conceptualization of transitions to school in the very beginning from the perspective of maturation or developmental theories (La Paro & Pianta, 2000; Boyle et al., 2018a; Vogler et al., 2008). Traditionally, school readiness is the terminology used for addressing transitions to school, which was conceptualized as a one-

off change event or point in time from the perspectives of developmental theories (Vogler et al., 2008). From this theoretical perspective, assessing whether children are capable of adapting to the new environment upon school entry is the focus of researchers and child effects model is the main theoretical model for explaining the factors influencing transitions to school, which tries to probe into the predictability of children's characteristics like age, ethnicity, cognitive readiness and temperament for their school adjustment (La Paro & Pianta, 2000). With regard to this perspective, child's maturation is also considered as an important contributor to transitions to school. Up to now, a multitude of research papers in this field still concern with using normative scales or check lists to measure children's capacities in multiple domains such as pre-academic skills, behavioral problems and social competence in order to determine or predict whether children's transitions to school would be smooth (Russo et al., 2019; Janus, 2007). The operationalization of school readiness usually covers the following domains: cognitive or academic skills, social and behavioral adjustment, health and well-being as well as executive functioning (Sandilos, 2019; Hatfield, 2016). However, focusing on children's readiness for school is criticized by researchers as an oversimplification of the concept of transitions to school and failing to take into account the complexity of the contextual, ecological and cultural attributes of transitions to school. For instance, as mentioned by National Association for the Education of Young Children (NAEYC): "When readiness expectations are based on a narrow range of skills competencies, and focus on only a few dimensions of development, the true complexity of growth is overlooked and children whose development is well within the normal range may be erroneously characterized as inadequate." (NAEYC,1995, p. 2).

Meanwhile, from this perspective, the concentration on the maturation of children also leads to some common strategies of parents using the practice of delaying their children's school entry, or so-called redshirting kindergarten in the USA, to help children transition to school, which is also called the 'gift of time' (Graue & DiPerna., 2000). Besides, in response to the incompatibility of focusing narrowly on children's school readiness with the inclusive educational policies (Wolery, 1999), the orientation towards conceptualizing transitions to school as a longer-term and more complex process rather than a one-off event began to emerge. Furthermore, empirically, a meta-analytic review by La Paro and Pianta (2000) showed that the calculated estimate of effect sizes of children's academic readiness on later academic outcomes was moderate and small in terms of that of behavioral measures on later school social outcomes. It was suggested that the results from early school readiness assessment of children made only

small to moderate contributions to predicting children's early school success and factors other than children's skills could explain the majority of the variances in both academic and social outcomes in early years(La Paro & Pianta, 2000). Such results supported that defining transition to school from other theoretical perspectives by taking into account the complex, cultural and contextual nature of transitions to school is a necessity. The theoretical perspective to address transitions to school gradually shifted from developmental perspective by focusing on whether children are ready for school to a broader ecological as well as socio-cultural perspective by viewing transitions to school as processes in which many stakeholders, besides children, are involved. Discourses about the need for a paradigm shift for school readiness construct and theoretical basis emerged. Researchers stressed that school readiness should not be a unitary construct but a bidirectional one with school being also ready for children with different patterns of developmental strengths and weaknesses (Carlton & Winsler, 1999). Furthermore, researchers advanced a broader definition of readiness and expands the notion from the readiness of children to including also the readiness of schools, families and communities (Ackerman & Barnett, 2005). Meanwhile, the construct of transition to school began to be used more frequently in the literature and overlapped with the broader definition of school readiness to some extent.

3.1.2 Transition as processes from socio-cultural and ecological perspective

To tackle the problematic construct of transition as a one-off event, including the popularity of delayed entry, transition class as a result of the poor validity and reliability of school readiness assessment for children, researchers discoursed a need for the paradigm shift (Carlton & Winsler, 1999). To better account for the variations in individual outcome of transition to school and explain the factors aside from children's characteristics, theoretical models for transitions to school based on socio-cultural and ecological theory were advanced by researchers. Instead of a one-off event of which children's capacities are the focus, according to socio-cultural perspective, the transition to school is conceptualized as a process of socio-cultural learning in which the specific contextual, social and cultural factors play an important role. In light of the terminology 'scaffolding' advanced by Vygostskian researchers, in transition process, teachers, parents and their peers are scaffolding and guiding children (Volger et al., 2008). Based on the theory of ecological system of Bronfenbrenner, Rimm-Kaufman and Pianta (2000) advanced a dynamic relationship-based model of transition to school, the ecological and dynamic model of transition, and emphasized the importance to conceptualize the transition to formal schooling from the perspective of ecological and dynamic theoretic view. They highlighted that the

influence of relationships between children and their surrounding contexts should be taken into consideration when we measure children's school readiness. Furthermore, the dynamic changing of the contexts and those relationships also should be paid enough attention to in the transition process (Rimm-Kaufman & Pianta, 2000). Such relationships provide the context for educational transitions (Dockett & Perry, 2007), as people and their individual characteristics, their ways of interacting and communicating, elements of different situations, and elements of time, entwine in new environments (Bronfenbrenner, 2005).

According to Rogoff, from the sociohistorical perspective, the basic unit of analysis of children's development is no longer the (properties of the) individual, but the (processes of the) sociocultural activity, involving active participation of people in socially constituted practices (Rogoff, 1990, p.14). Thus, transition process is more a guided participation of children in the changing and dynamic social activities than a one-off event. According to Rogoff, transition to schools constitute one kind of transitions across the whole life. People go through many transitions across their life span, which involve changes in role, identity, status, agency as they move into new developmental phase, accordingly in new educational environments when it is applied to educational transitions (Rogoff, 2003, pp.151-193). For example, children's role changes when they enter school. Transition to school involves continuity and discontinuity, which include both individual and social elements as children and those around them engaged in communal process and negotiate new practices and expectations (Rogoff, 2003). Consequently, the ecological and dynamic conceptualization, and the sociocultural conceptualization of transition to school stress more the contexts in which the transitions process happened and expanded to the extent that the cultural nature of transition to school determined that there is no one universal and best way of transition.

3.1.3 Transition as continuity from ontological perspective

As the importance of contexts in which transitions happen is recognized and widely accepted by researchers, the necessity of explaining the unfolding of transition in particular sites and settings began to emerge. As researchers advocate, there is not a universal way of transition, it varies from situation to situation. Meanwhile, a consolidated body of research stressed that continuities should be enhanced to smooth the transition process. And this trend of research became more evident and was explicitly advanced as a construct of transition to school.

Based on the theory of practice architecture, Boyle et al. (2018b) reframed the concept of transition to school as continuity practices by shifting from the epistemological perspective to

the ontological perspective and developed a conceptual model of transition to school. According to the basic assumption of the ontological perspective that "the way a practice unfolds or happens in always shaped by the conditions that pertain to a particular site at a particular time" (Kemmis et al., 2004), their model stressed that transition is continuity practices which rarely universally unfold across different sites and different time(Boyle et al., 2018b).Three important domains of continuity in transition were encompassed in their conceptual model of transition as continuity practices, including developmental continuity, contextual continuity and structural continuity.

Though continuities highlighted in the model were not explicitly used in the construct of transition to school before the work of Boyle et al. (2018b), they were stressed by the Organization for Economic Co-operation and Development (OECD) in its report of Starting Strong V: Transition from Early Childhood Education and Care to Primary Education (short as Starting Strong V). However, OECD advanced different categories of continuities in Starting Strong V, including four interdependent domains, which are organization and governance, professional continuity, pedagogical continuity, and developmental continuity (Organization for Economic Co-operation and Development, 2017, p.13). Professional continuity, which is framed by the structural and procedural environment, requires that professionals, including ECEC center leaders, primary school principals, ECEC staff and primary school teachers are prepared and well supported for collaboration through professional development and initial training. The structural and procedural environment includes the working environment, salary and work benefits, and the degree to which levels of status and recognition vary between ECEC and primary school professionals (OECD, 2017, p.24). Pedagogical continuity includes high-quality and child-centered staff-child interactions, the joint creation of pedagogical transition practices by staff at both levels, informative curricula or guidelines for pedagogical transitions, a balanced curriculum with roughly equal emphasis on play, self-regulation and pre-academic activities, and similar structural features in ECEC and primary school. Developmental continuity requires the collaboration among parents, ECEC and primary school staff, and communities to share the development information of children to improve the ongoing development of children in both levels (OECD, 2017, p.27).

Based on the work of OECD and other works concerning with continuities in transition to school, Boyle et al. (2018b) categorized continuities in their model in a different way into different domains. Three domains of continuity are different from the OECD's classification but overlap with it in some ways. In their model, structural continuities refer to the professional,

curriculum, pedagogical, organizational, governance, philosophical, administrative, physical and policy frameworks to establish enabling conditions for transitions practices. This domain covers several continuities advanced by OECD in Starting Strong V. Additionally, they pushed forward the contextual continuities, which is not explicitly named in Starting Strong V, to address the relational and practical coherence among a range of stakeholders including children, families, professional and communities (Boyle et al., 2018b). Though not clearly included as one domain of continuity in Starting Strong V, the importance of coherence of pedagogical understanding and the collaborations among professional staffs in both levels is highlighted in the majority part of the report.

The model of transition as continuity practices by Boyel et al. (2018b) is mainly underpinned by practice architecture theory from the ontological perspective. The importance of the three domains of continuity and transition practices were highlighted by the theory. The practice architecture theory claims that participants in a "community of practice" encounter one another in intersubjective spaces which includes semantic space, physical space and social space. In three dimensions, three distinctive kinds of arrangements exist and enable and constrain the way of our practices (Kemmis et al., 2004, p.4). In the semantic space, the social medium of language, for instance, the shared specialist knowledge constrains or enables how we express ourselves. In the scenario of transition to school, the shared professional knowledge or pedagogical understanding of teachers in both settings (ECEC and primary school) could facilitate or impede the transition process. In the physical-time space, the medium of work and activity, for example, a workplace, a building, enable and constrain how we do things. In the projection of the above theory into transition to school, the separation of ECEC from the primary school or its integration with primary school in terms of physical distances could promote or undermine the transition. In the social space, the medium of power and solidarity, for example, the relationships between people in a family, enable and constrain how we can connect and contest with each other (Kemmis et al., 2014). In application to transition to school, the collaborative or unequal relationship among stakeholders of transition to school might contribute to or compromise the transition process.

3.1.4 Connections and differentiation among different theoretical perspectives

The diverse theoretical constructions of school readiness and transition to school implies the complexity of the concepts. This part of the review did not exhaust the theoretical perspectives

concerning with the two concepts, but only illustrated some major ones. As the constructions of transition to school from the above theoretical perspectives show, different constructions have different foci. The developmental perspective stresses the competence of child, while the socio-cultural and bio-ecological perspectives highlights the role of stakeholders as well as relationship among them, and the ontological perspective emphasizing enhancing continuity and deeming the transition as practices. The latter three perspectives are more "school ready for child" than the first perspective, however, the first developmental perspective is still important for us to understand school readiness and transition to school. Though assessment for child's school readiness is criticized in many ways, it is still necessary for us to evaluate child's competence for providing the optimal education arrangement, identifying children at risk and improving the equity of education. But it is from other perspectives that we could learn that school readiness is not binary, and it could not be oversimplified as child's school readiness. From the socio-cultural and bio-ecological perspectives, which are used very frequently in school readiness and transition research, researchers are guided to think about the role of contexts, such as school, culture, relationship in the transition process in a dynamic and interactive way. The ontological perspective is a new trend and focuses on what we need to do to enhance continuity in transition and it's more specific and directs to the policy and practice of transition. From this standpoint, the four theoretical perspectives complement with each other and diversify the framework of the empirical studies of school readiness and transition to school, offering us different angle to understand this topic.

3.2 School readiness assessment and related child's characteristics

As stated in the section above, from the developmental perspective, researchers are inclined to assess child's capacities of adapting to school and to explore child's characteristics related to school readiness. Among the empirical studies, a large body of literature adopted the developmental perspective as framework, focusing on measuring child's school readiness and examining children's characteristics associated with school readiness, mainly child's school entry age and socioeconomic status. The following part address main findings surrounding this theme.

3.2.1 Child's school readiness assessment

A wide range of scales are used to measure child's school readiness, the following part illustrate some commonly used scales briefly, some detailed information about scales are in the annex.

Besides, empirical study findings concerning with child's school readiness patterns are also reviewed in this part.

3.2.1.1 Multidimensional school readiness scales

A body of research measures school readiness by the Early Development Instrument (EDI), which was developed in Canada, rated by teachers on children's school readiness of five domains: physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge (Janus & Offord, 2007). EDI was adapted and used across different countries, such as Australia, USA, Jamaica, and some other countries (Janus et al., 2011; Wolf et al., 2017). One adapted version of EDI widely used is the International Development and Early Learning Assessment (IDELA), which is a direct measure of children's school readiness in low- and middle-income countries. IDELA was partly based on and adapted from the EDI and also covered five domains of school readiness, namely emergent numeracy, emergent literacy, social-emotional development, motor development and executive function (Wolf & McCoy, 2017). Though widely used internationally, EDI was criticized in several ways for several limitations, among which the most important one is the narrow definition of school readiness behind this scale because it only measures child's readiness without taking into account the roles of family, school, etc. Thus, Hughes et al (2015) from England developed the Brief Early Skills and Support Index (BESSI) in terms of broad definition of school readiness to include family support available for children in early years. BESSI is a scale for children aged 2.5 to 5.5 and include four domains, behavioral adjustment, language and cognition, daily living skills and family support(Hughes et al., 2015).

Among the above scales, EDI was also adapted to Chinese Early Development Instrument (CEDI) for school readiness assessment of Chinese children (Ip et al., 2013). BESSI was also used directly in Chinese studies for assessment (Wang, 2019). Aside from the scales adapted from those used in international studies, local instruments for measuring school readiness for Chinese children were developed, such as the School Readiness Test Battery-Comprehensive Version (SBTB-CV) (Gai, 2007) and the diagnostic scale on maturity of children entering school (Qian & Ding, 2010), which were designed to be administered by trained professionals. Besides, Yu and Gai (2013) developed Children's School Readiness Assessment rated by Chinese parents (Yu & Gai, 2013), which is consisted of three sub-scales, measuring the developmental risks, type of temperament, and self-control. Longitudinal follow-up study showed that the outcome of the scale could predict child's school adjustment one month after

school entry. Among these instruments, the most widely used one in Chinese studies is SBTB-CV, which is composed of five domains, basic knowledge and cognition, approaches to learning, language, motor skills, social and emotional development (Gai, 2007).

3.2.1.2 Scales for measuring academic school readiness

Academic or cognitive school readiness is one of the main foci of researchers. A multitude of research measures school readiness only in the academic domain. Several most widely-used measures include the Peabody Picture Vocabulary Test, Third Edition (PPVT-III) (Dunn & Dunn, 1997), which is used for measuring children's receptive vocabulary. Some other instruments to assess children's reading and math skills are also used for measuring cognitive school readiness, for instance, subtests from the Woodcock-Johnson III Tests of Achievement and Woodcock-Johnson III Tests of Cognitive Abilities (Woodcock et al., 2001) or Woodcock-Johnson III Tests of Achievement, Normative Update (WJIII-NU) (Woodcock et al., 2007). Another scale used less frequently in extant literature for testing the academic school readiness is Bracken School Readiness Assessment-III(BSRA) (Panter & Bracken, 2009), which is a standardized test of basic readiness skills, including subtests focusing on colors, letters, numbers, shapes and sizes (Micalizzi et al., 2019). Other research directly assesses children's math and reading skills at the entry of kindergarten or primary school and use IRT-based procedures to make the scores comparable among children (Padilla & Ryan, 2020; Greenfader, 2019).

3.2.1.3 Scales for measuring social-emotional school readiness

Social skills are measured by scales such as the Social Skills Improvement System Rating Scales (SSIS-RS) (Gresham & Elliott, 2008)， assessing children's social skills including communication, cooperation, assertion, responsibility, empathy, engagement and self-control. Another instrument for evaluating social-emotional school readiness is the Preschool and Kindergarten Behavior Scales-Second Edition (PKBS-2) (Merrell, 2003) (including children's prosocial skills, approaches to learning, problem behaviors and emotions, emotion knowledge, temperament, and friendships) and Social Skills Rating System (SSRS) (Gresham & Elliott, 1990) (including interpersonal, approaches to learning, aggression, and anxiety). Another commonly used scale is the Ages and Stages Questionnaire: Social-Emotional (Squires et al., 2002) concerning with children's self-regulation, compliance, communication, adaptive functioning, autonomy, affect, and interaction with people.

3.2.1.4 Scales for measuring school readiness behaviors

Behavioral school readiness is measured by Externalizing subscale of the Child Behavior Checklist/4-18 (Achenbach, 1991). Other researchers use the Social Competence and Behavior Evaluation short-form (SCBE-30) (LaFreniere & Dumas, 1996), evaluating children's peer-related positive social interactions and prosocial-related behavior, aggression, impulsive behaviors, sadness, anxiety, and inhibition. Another scale commonly used for evaluating behaviors is the Teacher-Child Rating Scale (Hightower et al., 1986) for identifying over aggression, poor work habits, disruption in class, difficulty following directions. More recently, the Adjustment Scales for Early Transition in Schooling (ASETS) is developed as a "contextually-specific" scale for social and behavioral adjustment from preschool to the first grade. ASETS includes three subscales, aggression, attention seeking, and reticence (McDermott et al., 2014).

3.2.2 School readiness patterns

One important topic about school readiness assessment is to delineate the transition process and to identify the patterns of school readiness on an individual level. In international studies, some researchers identified three profiles while other researchers found six profiles with respect to school readiness. In Chinese studies, 3 to 4 profiles of school readiness were identified in extant literature.

While examining the patterns of school readiness, some researchers measured the functioning in social and executive function domains at 54 months and categorized the patterns into six distinct profiles of school readiness. The relationship between patterns of school readiness and later achievement was also explored by researchers. It is revealed that six school readiness profiles at 54 months predicted the academic and socioemotional outcomes in fifth grade. Children's early social competence positively predicted the academic achievement in fifth grade, additionally, children with poor self-regulation skills at 54 months are associated with lower performance in fifth grade (Sabol & Pianta, 2012). Other researchers measured more domains of school readiness and adopted latent profile analysis to identify school readiness patterns at school entry and examined the changes of the patterns during transition to school. The domains measured were math, science, executive functioning, behavior, and approaches to learning. Three school readiness profiles were identified by latent profile analyses at the school entry and the first grade. The results showed that the school readiness profiles were stable

during transition to school. And it was also revealed that background characteristics and the teacher-child relationship were associated with child's school readiness profile transition (Sandilos et al., 2019).

Lu et al. (2012) employed cluster analysis for classify Chinese children with different category of school readiness, 4 types were identified, including good overall readiness, poor readiness on health and motor skills, good readiness on health and motor skills with poor readiness in other domains, and poor overall readiness. Children with good overall readiness had the best school adjustment, whereas, those with poor overall readiness had the worst. Gao (2014) adopted the latent profile analysis and identified 3 types of school readiness of Chinese children, which are well-developed, ordinary and lagging behind. The level of self-confidence and anxiety differ significantly among three groups of children.

3.3 Child's characteristics associated with school readiness

3.3.1 Child's entry age and deferred school entry

Research focusing on the relationship of postponement of school entry and academic achievement yielded mixed results. A large body of research across countries revealed that the redshirting is positively associated with short-term higher academic achievements, for instance, at the beginning of kindergarten or the first school year (Lubotsky & Kaestner, 2016; Dagli & Jones, 2012), or during elementary school (Datar & Gottfried, 2015; Altwicker-Hámori & Köllö, 2012; Datar, 2004; Fortner & Jenkins, 2017). Other studies identified the positive relationship between delayed entrance and the non-cognitive development of children, for instance the delayed entrance was found to be associated with significantly better the socio-behavioral outcomes during elementary school (Lubotsky & Kaestner, 2016; Datar & Gottfried, 2015). However, such positive effects were revealed to attenuate as the students progress through the school (Lubotsky & Kaestner, 2016; Datar & Gottfried, 2015; Altwicker-Hámori & Köllö, 2012), while other research found the effect persisted (Ponzo & Scoppa, 2014).

3.3.2 Child's socioeconomic status

A consolidated body of research empirically substantiated the association between socioeconomic status (SES) and school readiness. Children from low SES families are less ready for school than those from the upper spectrum of SES families (Fitzpatrick et al., 2014; Larson et al., 2015; Wolf & McCoy, 2017; Ren et al., 2020). Though most evidences in English-

language literature came from Euro-American research, the results from other countries, including Canada, China, Ghana, etc., were generally consistent with those from European and American studies. Evidence showed that SES was both directly and indirectly associated with children's school readiness (Razza et al., 2010; Larson et al., 2015).

The disparities of school readiness, especially of academic or cognitive school readiness between children from low SES families and their counterparts from high SES families are significant across countries and ethnicity. Some Chinese researchers found that SES predicted children's later math and science performance after controlling for earlier performance (Zhang et al., 2019). Some research showed that mothers' education of a high school level contributed additively to child outcomes among the low-income Latino families in America (Briceno et al., 2013).. Evidence from American research suggested that social class influence children's school readiness skills both academically (math and reading abilities) and non-cognitively (self-control, social skills, approaches to learning, and persistence). Significant gaps existed between the reading and math skills of white and Asian children and those of black and Hispanic children. The most socioeconomically disadvantaged children lag behind in non-cognitive skills (Garcia & Weiss, 2015). Some researchers focused on the influential factors on black girls' school readiness patterns, they found that decreased socio-economic resources in the home were associated with more likelihood of being classified as struggling learners (Iruka et al., 2020). Also, for immigrant children, research results concerning the association between SES and school readiness converge. Researchers utilized the latent class analysis to identify the family risks on school readiness, they arrived at four family risk profiles, including low SES multilevel risk, maternal abuse history, low SES immigrant risk and low risk. They conducted path analyses and revealed that children in low SES multilevel risk and low SES immigrant risk profiles had the weakest school readiness (Browne et al., 2018).

3.4 Influence of family, ECEC and primary school on the transition process

From the bio-ecological and socio-cultural perspectives, researchers use the terminology transition to school more than school readiness. The research questions of interest are the process of transition, the role of stakeholders in this process, including family, settings, etc. Additionally, empirical studies from these perspectives also examine the relationship among stakeholders and the influence on the process of transition to school. In terms of the research methods, more qualitative studies emerged to delineate the transition process, including child's

experience of transition to school. Specifically, an orientation towards exploring child's perspectives on transition to school became evident and a stream of research was developed in this field accordingly. This part reviewed empirical findings both in English and Chinese surrounding the above topics.

3.4.1 family-related factors

3.4.1.1 Conceptual model for influence of family-related factors

Extant empirical studies explored a wide range of family-related factors in transition to school, such as parents' beliefs about school readiness, parental involvement, etc. Based on the bio-ecological perspective, Taylor et al. (2004) proposed a conceptual model of academic socialization to globally illustrate the influence of parents' characteristics, parental involvement, socioeconomic and cultural context on transition to school or early school adjustment. Researchers categorized the studies on family-related factors into two broad perspectives. Parents' beliefs and their educational experience, socioeconomic status are factors about "who parents are", parental involvement, transition practices, and parenting behaviors are factors about "what parents do". Some empirical evidence supported the academic socialization model that parents' beliefs about school readiness could influence child's transition to school through the mediation of parenting behaviors and parental involvement (Puccioni, 2015, 2018). The following part reviewed empirical findings about the influence of parents' school readiness beliefs and socioeconomic status, parental involvement and parenting behaviors on transition to school and school readiness.

3.4.1.2 Parents' beliefs and socioeconomic status

Researches almost reached a consensus on some positive family-based factors impacting school readiness. For instance, positive socioeconomic characteristics, high-quality parent-child relationship, maternal involvement were related to better school adjustment (Kiuru et al., 2016). Economic disadvantage is related to less academic gains, such as math and reading testing gains on early learning. Sandilos and Pianta (2019) drew on the longitudinal database and adopted multilevel analysis to identify family-based mechanisms of economic effects on early learning. Results showed that children's socio-emotional problems, parenting stress, and parents' human capital investments partially mediated the relationship between economic disadvantage and academic gains, such as math and reading testing gains across the primary grades. Teacher

experience in grade level is revealed to be a consistent protective factor against family-based risks for reading (Sandilos & Pianta, 2019) .

Parents' beliefs, expectations, perspectives or notions of school readiness are also of interest for researchers. Some researchers compared parents' school readiness beliefs with teachers' (Chan, 2011; Correia & Marques-Pinto, 2016), while other researchers explored parents' school readiness beliefs solely (Barbarin, 2008). Parents' school readiness beliefs vary across cultures and some patterns are found by researchers. Studies showed that Chinese parents generally value children's academic skills and self-discipline (Chan, 2011). Whereas, in Denmark, parents deem social learning as the most important skills of child's school readiness and academic competence is not important as it could grow naturally (Kjaer et al., 2020). Besides, research revealed that among US immigrant parents from China, Dominican Republic and EI Salvador, two profiles of parents' school readiness beliefs were found, the first emphasized academic skills and the second emphasized learning-related skills (Sawyer et al., 2022). Research also showed that Asian American parents and European American parents held different school readiness beliefs (Sy & Schulenberg, 2005).

3.4.1.3 Parental involvement and parenting behaviors

High-quality relationship between a parent and children can protect children against adjustment problems. One longitudinal study showed that a high-quality relationship with parent was negatively associated with adjustment problems. High maternal support at school entry buffered against adjustment problems for children with low quality relationship with teacher (Kiuru et al., 2016). Additionally, maternal involvement is related to positive school adjustment outcome. A two-wave longitudinal study showed that mother's involvement in language and cognitive activities were positively associated with smooth school transition. It was also revealed that mothers were more involved at children's schools when their children showed lower cognitive skills in kindergarten (Lau & Power, 2018). Liu and Li (2015) investigated the parental involvement in China and revealed that parents of girls had higher parental involvement in transition than those of boys. Chinese parents with higher SES were found to be more likely to get involved in helping their child transition to school. Studies on Chinese parents examined three types of parental involvement and their relations with school readiness, the results showed that home-based involvement was positively related to children's school readiness and the effect was stronger than school-based involvement and home-school conferencing (Xia et al., 2020). Studies on parenting behaviors and parenting style are also included as "what parents

do" perspective, some parenting behaviors are associated with better school readiness, such as parent responsiveness, supportiveness, richer home learning environment (Kristin et al., 2019). Studies about the association between parenting style and school readiness arrived at similar findings. Supportive parenting style were associated with better school readiness for Chinese children (Xie & Li, 2018).

3.4.2 ECEC and school based influential factors

Researchers explored the relations between characteristics of ECEC settings and primary schools with transition to schools, including classroom engagement, alignment of ECEC teachers' and primary school teachers' belief about school readiness, teacher-child interactions, and the quality of ECEC.

3.4.2.1 ECEC classroom engagement

Different classroom engagement is found to be related to the academic adjustment regarding school readiness. Some researchers identified four patterns of child engagement in preschool classrooms using latent class analysis, free play, individual instruction, group instruction, and scaffolded learning. The relations between those classroom engagement patterns and school readiness in different domains were examined. The results showed that free play children were found to gain less in domains of literacy and mathematics than other groups. Individual instruction group made greater gains than other groups academically (Chien et al., 2010). Furthermore, other researchers explored whether the time spent on free-choice and teacher-directed activities in preschool classroom predict the school readiness. The results showed that overall proportion of free choice activity time was positively associated with children's average inhibitory control gains, teacher-directed activity time predicted language development gains and early literacy skills. And effective teacher-child interactions in free choice activities were significantly associated with children's average language development gains and early literacy skills (Goble & Pianta, 2017).

3.4.2.2 ECEC teachers' and primary school teachers' beliefs

Researchers found that alignment of ECEC teachers' and primary school teachers' beliefs on school readiness is positively associated with children's school readiness, including socio-behavioral and academic adjustment. Some researchers drew from Early Childhood Longitudinal-Birth Cohort data to examine the extent to which ECEC and kindergarten teachers

(in the USA, transition to school refers to entry to kindergartens) aligned in their beliefs regarding school readiness and the relations of the alignment with children's school readiness. The results revealed that greater misalignment of beliefs predicted poor school adjustment rated by teachers and the socioeconomic background of children moderate the relations between misalignment of beliefs and school adjustment (Abry & LoCasale-Crouch, 2015). Other researchers explored the key elements of school readiness characteristics perceived by pre-service and in-service early years teachers in six countries: Australia, Austria, Colombia, Germany, Nicaragua, and Slovenia. The result showed that teachers rated independence, social skills and concentration as very important, pre-academic and physical development were considered to be the least important school readiness characteristics. (Niklas et al., 2018).

3.4.2.3 Teacher-child relationship

Besides, researchers also explored the impact of teacher-child relationship on school readiness. Some researchers found that children had larger gains in academic outcomes during transition period when they had closer teacher-child relationships. Such gains were independent from child's or program's characteristics (Howes et al., 2008). Another study examined the relations between teacher-student conflict at kindergarten and the child's school adjustment in primary school in Hong Kong. The results showed that the direct effect of teacher-student conflict on school adjustment was not significant, but the indirect effect of self-regulation was significant. Teacher-student conflicts were negatively related to children's self-regulation, and predicted subsequent school adjustment. The indirect effect was significant only when parents' positive relations with others were low (Li & Lau, 2018). Research also showed that high positive teacher affect in Grade 1 can reduce adjustment problems for children with low maternal support (Kiuru et al., 2016).

Besides, Quasi-experimental method was adopted in another research to examine the effect of interventions aiming to improve teacher-student interactions on children's school readiness. The results revealed that children demonstrated better inhibitory control when their teacher had been coached. Teachers who received both coursework and coaching reported that children in their classrooms demonstrated better behavioral control (Pianta et al., 2017) .

3.4.2.4 Transition practices

A large body of research assessed the relationship between the number, the pattern of transition practices and children's adjustment. A study described preschool teachers' use of transition

practices and examined the extent to which these practices were related to children's school readiness. The results revealed that children were rated as more socially competent and having fewer problem behaviors when the preschool they attended implemented more transition activities and, specifically if preschool teachers discussed curricula or specific children with school teachers. Additionally, such positive association were stronger for children at socioeconomic risks (LoCasale-Crouch et al., 2008). Likewise, a Finnish study examined that relation between the transition practices and children's academic performance using multilevel latent growth curve modeling. The results showed that the number of transition practices implemented by both preschool and school teachers during the preschool year were positively associated with the speed of children's skills development during transition to school. It was revealed that , among transition practices, cooperation concerning with curricula and sharing written information about children were the best predictors of the children's skills, however, these were used the least (Ahtola et al., 2011). However, with a nationally representative sample of children in the United States, other researchers adopted prospective, lagged regression models analysis and the results showed that more types of transition practices could predict better behavioral readiness, but was not related to children's attention or academic outcomes. Furthermore, transition activities targeted at parents were found to be related to children's better academic adjustment after school entry. The researchers concluded that the "more is better" view was not supported and instead specific type of transition practices were linked to children's specific aspects of functioning (Cook & Coley, 2017).

3.4.2.5 Quality and pedagogy of ECEC

There is also some research focusing on the impact of quality of ECEC programs on school readiness. A longitudinal study explored the benefits of high-quality childcare between birth to 54 months of age. Results indicated that the benefits of high-quality ECEC in math and literacy accumulated from the end of preschool through age 15 only with the persistence of high-quality elementary school classroom environment. On the contrary, the benefits of high-quality ECEC faded out when the quality of later classroom environment in primary school were low(Arya & Robert, 2018). Other researchers tested the hypothesis that the relations between early childcare quality and outcome are nonlinear. The results revealed that associations between ECEC quality and children's inhibitory control as well as phonological awareness were stronger when class emotional support was higher, and associations between ECEC quality and children's literacy skills were greater in classrooms with better classroom organization (Hatfield et al., 2016). Besides, the pedagogy of ECEC was found to be associated with school readiness. Chien et al

(2010) identified four patterns of child engagement in preschool classrooms, free play, individual instruction, group instruction, and scaffolded learning, and explored the relations between those classroom engagement patterns and school readiness in different domains. The results showed that free play children were found to gain less in domains of literacy and mathematics than other groups. Individual instruction group made greater gains than other groups academically.

3.4.2.6 Relationship among stakeholders

Based on the bio-ecological perspective, relationship among stakeholders plays an important role in transition to school. International studies showed that positive close teacher-child relationship was positively associated with child's school adjustment in terms of academic outcomes(Howes et al., 2008), and teacher-student conflicts were negatively related to children's self-regulation and predicted subsequent school adjustment(Li & Lau, 2018). It was also showed that high positive teacher affect in Grade 1 can reduce adjustment problems for children with low maternal support (Kiuru & Laursen, 2016). More robust result from Quasi-experimental research revealed that children demonstrated better inhibitory control when their primary school teacher had been coached to improve teacher-child interactions (Pianta et al., 2017). Several Chinese studies dealt with the relationship among stakeholders in transition to school. Lu et al. (2014) explored the interpersonal relationship in the ecology system of transition and tried to identify the model of how the expectations of parents influence children's peer relationship, teacher-student relationship as well as their school adjustment. They found that child's peer relationship predicted school adjustment, and parents' expectation had a regulatory effect on the association between peer relationship and school adjustment.

3.4.3 Children's perspectives on transition to school

From the sociocultural perspective, researchers, especially in Nordic countries, highlight the importance to probe into children's views on transition to school as they are the main agent in this process. Researchers often adopt ethnographic methods for exploring what children think and feel about the transition process. Child's drawing and photography were used for eliciting opinions about transition to school in the interview or complement with the interview. Research results reach consensus that children are able to think about the transition process and they are active agent in this process (Einarsdottir, 2010, 2011; Salmi & Kumpulainen, 2019). Besides, the Mosaic approach, which featured multi-method, was also applied in this field to listen to

the voices and views of children about transition to school (Dockett & Perry, 2005; Ring, 2016). Children's perspectives on their experience are the main foci of this stream of research, research questions addressed children's feelings about transition, opinions about the differences between preschool and school as well as child's identity changes, self-development (Ackesjö, 2013; Eskelä-Haapanen, 2016; Roncancio-Moreno & Branco, 2017; Ma, 2019).

Among the research question on children's feelings about transition is an important theme. International research findings are almost consistent that children have mixed feelings about transition to school, both excited and anxious. What's noteworthy, in recent years Chinese studies focused on probing into children's stress or pressure in transition to school. Wong and Power (2019) revealed that Chinese children's strategies coping with stress in transition to school were composed of negative coping, positive coping, and distraction. Additionally, distraction might not always be an effective way to help children reduce depressive symptoms, and that coping strategies might have a greater impact on buffering against later depression risk for girls than for boys. Measuring children's pressure and stress is an emerging topic in Chinese studies about children's perspectives on transition to school. Based on child's interviews, Wang and Liu (2018) found that the main stressors for children were rules and teachers' authority in primary school. Besides, to probe into the pressure of children during transition to school, a scale was developed and used for assessing the psychological wellbeing of children (Jiang et al., 2020).

3.5 Continuity in transition

Before Boyle et al (2018b) constructed transition as continuity practice from ontological perspective, a body of research had been focused on continuity in transition, however, not explicitly based on a particular theory. While after the proposal of their conceptual model of transition as continuity practices, a handful of international studies employed it as theoretical framework. In Chinese studies, though no such conceptual model was advanced to guide empirical studies, research concerning with continuity between ECEC and primary school constitute an important topic of interest. Given that empirical studies from this newly advanced model and theoretical perspective are few, this part reviewed the empirical research findings surrounding continuity in transition in international and Chinese literature. Research concerning with continuity and alignment in transition to school encompasses the continuity of policy and practice, of curriculum, of children's experience, and of leadership between ECEC and school.

3.5.1 Continuity of policy and practice in transition

International studies revealed challenges for transition policies and practices to facilitate continuity across countries and within countries. Starting Strong V, the report of OECD published in 2017, shed light on the continuity enhancement in transition from early childhood education and care to primary school in a larger scope. In starting strong V, the findings of OECD survey on transition policy and practice across 30 countries were reported. Challenges in terms of professional continuity, curriculum and pedagogical continuity, and developmental continuity commonly confronted by countries encompass misalignment of perspectives of preschool and school teachers, differences and discontinuities in curricular, lack of shared pedagogical understanding, engaging parental involvement, difficulty in child development exchanges, etc. Policy pointers were advanced such as encouraging cooperation, collaboration to enhance continuity, support local leadership by national policy framework and so on (OECD, 2017, p.14). Cohen-Vogel et al. (2020) investigated the instructional policy support alignment between preschool and school in a local level in North Carolina, USA. The results showed that the alignment regarding the standards, curricula, and assessments was weak between preschool and school.

Chinese studies concerning with transition policy and practices continuity featured a large body of comparative studies. The major findings of Starting Strong V were introduced in China and enlightened the transition policy and practices (Xu & Liu, 2019). Besides, the policy and practices on promoting continuity in other countries such as Australia (Liu, 2015), Japan (Liu, 2020) were also introduced. On the other hand, based on unique challenges in China, policy and practices recommendations for enhancing the continuity in transition were advanced by researchers, such as governance and organization focusing on improving continuity between ECEC and primary school (Yuan & Yang, 2019), aligning the professional training of teachers between two sectors(Yuan & Yang, 2019; Fan et al., 2010) , improving collaboration of ECEC teachers, primary school teachers and parents on transition activity action research(Fan et al., 2010; Li et al., 2012). However, research on the effectiveness of these policy and practices was lacking.

3.5.2 Continuity of curriculum, pedagogy and children's experience

One study from UK investigated pedagogical continuity and discontinuity in transition to school, namely Reception to Year 1 in England, employing qualitative methods. Children and

teachers were interviewed to about their opinions and feelings about the play-based pedagogy. Teachers were also asked about their perspectives on the pedagogical differences between two sectors. Results showed that school teacher used play as an incentive rather than for pedagogy and children were aware of the pedagogical misalignment in transition to school. It is suggested that play could be the way to enhance pedagogical continuity during transition (Nicholson, 2018). Chinese researchers investigated the discontinuity in curriculum and found that significant differences existed between ECEC and primary school curriculum in terms of resources available, decision-making process of the contents (Qin & Hou, 2005). Chen (2014) compared the teaching practices in Chinese ECEC and primary school. It was revealed that the major discontinuity of teaching practices between two sectors lies in that primary school teachers adopted more knowledge-centered pedagogy while teaching in ECEC was more child-centered.

Researchers examined the continuity of children's classroom experience between preschool and school by comparing the structural, process features of classroom as well as the teacher beliefs and practices between two sectors. Longitudinal data were employed, independent sample t tests and Chi-square tests were conducted to compare the indicators. Results showed that several discontinuities existed, including more teacher-structured activity and less effective teacher-child interactions at schools than preschools (Vitiello et al., 2020).

3.5.3 Program enhancing continuity through leadership

Based on the conceptual model of transition as continuity practices from ontological perspective, some Australian researchers in New South Wales adopted the critical participatory action research method to enhance shared understanding of practices in a transition program through cross-sectorial leadership. The results revealed that through leading practices including inclusive communication, negotiating shared goals and differences, shared understandings of transitions to school practices could be established between professionals in two settings, namely ECEC and school. The transition policy and practice specific to the scenario was built based on the shared understanding (Boyle & Wilkinson, 2018). In terms of Chinese research findings, Fan et al. (2010) also reported some practices on promoting continuity through leadership though not explicit under any theoretical framework. Coordinated by local authorities, they launched a transition collaboration program between ECEC and primary schools and reported some practices including bidirectional collaboration on constructing the curriculum, communication and exchange between ECEC and primary school teachers in

practice, joint training on transition for teachers of two settings, as well as the one-to-one partnership between classes in the last year of ECEC and those in lower grades of primary school. However, evidence for the effect of those practices was not explicitly stated.

4. RELATIONSHIP BETWEEN MY RESEARCH QUESTIONS AND EXISTING LITERATURE

The research questions of interest in the current study are about parents' and teachers' school readiness beliefs, which constitute important influential factors for transition to school. Among the massive topics surrounding transition to school, school readiness beliefs of stakeholders, including those of parents, of ECEC and kindergarten teachers, as well as of children, were well documented in the existing literature. Both quantitative and qualitative studies on stakeholders' school readiness beliefs were found in the previous studies, especially in English studies. Nevertheless, several gaps regarding this topic were identified. Firstly, studies focusing on a quantitative-based comparison of school readiness beliefs between parents and teachers are inadequate, especially in Chinese studies. However, such comparison is conducive to aligning school readiness beliefs among the stakeholders and improving continuities in transition to school based on the ontological perspective. One research question addressed in this study is to compare the school readiness beliefs of parents and teachers (including ECEC and first grade teachers) in China in a quantitative way. Such exploration adds to our knowledge of the misalignment of beliefs on school readiness among these stakeholders. Besides, existing literature delineated parents' school readiness beliefs with underlying hypothesis that school readiness beliefs are homogeneous among parents and only vary in a quantitative way. However, such hypothesis could be challenged by qualitative evidence in extant literature. Lareau (2002,2011) found in her work *Unequal Childhoods* that parenting practices vary in nature across SES spectrums, higher SES parents raised their children in different ways compared with lower SES parents. Thus, parenting beliefs, specifically school readiness beliefs, which are closely associated with parenting practices could also be heterogeneous across SES backgrounds. Given that few studies examined the typology or patterns of parents' school readiness beliefs, this study adds to the extant literature in this way to examine if school readiness beliefs vary among parents across SES spectrums. Thirdly, this study explores the patterns of a combination of factors related to children's school readiness, including the combination of parents' school readiness beliefs and parenting style, as well as the combination of parents' school readiness beliefs and attitudes regarding roles in school readiness. To the

best of my knowledge, the existing literature did not explore the patterns of combination of such factors. Given that both parental school readiness beliefs and parenting style are factors related to children's school readiness, examining how these variables associate and form patterns could help to delineate the complexity of these factors characterized in different subgroup of parents and could be informative for targeted parental intervention

The existing literature laid a solid foundation for this study both theoretically and empirically. Theoretically, the existing literature provided a framework for this study. The bio-ecological, specifically, the academic socialization model mainly is the justification and theoretical basis of this study, which I will elaborate later in the methodology section. Empirically, the quantitative research on school readiness beliefs provided with this study batteries of scale items for developing and adapting a scale with good psychometric properties in this study. Besides, the research hypotheses of this study were formulated based on the empirical findings and theoretical models in the existing literature. Furthermore, as mentioned before, this study contributes to the extant literature by filling in the above gaps.

CHAPTER 3

METHODOLOGY

1.FORMULATION AND JUSTIFICATION OF THE RESEARCH QUESTIONS/ HYPOTHESES

1.1 Justification of the research questions/hypotheses

Continuities are assumed as important to successful transition to school, according to the conceptual model from the ontological perspective (Boyle et al., 2018b). Such continuities including the continuity of beliefs and understanding among parents, kindergarten teachers and primary school teachers, would contribute to successful transition to school. Beliefs on school readiness of different stakeholders are investigated in existing literature, including parents (Puccioni, 2015), ECEC teachers (Smith & Glass, 2019) and school teachers (Lin et al., 2003). A body of research compares the school readiness beliefs of parents, ECEC teachers and school teachers and especially focuses on the alignment or misalignment of beliefs among them (West et al., 1993; Harradine & Clifford, 1996; Timperley et al., 2003; Piotrkowski et al., 2000; Hatcher et al., 2012; Abry et al., 2015). Among those studies, only a few examined school readiness beliefs in terms of the multidimensional conceptualization of school readiness (Piotrkowski, 2000), whereas most related studies focused on parents' beliefs on a narrower scope of school readiness, mainly regarding the academic and socioemotional skills (Puccioni, 2015; Abry et al., 2015).

In general, the existing findings are consistent regarding the major differences of what parents, ECEC teachers and school teachers emphasize regarding children's school readiness skills. Parents value the concrete academic knowledge (Knudsen-Lindauer & Harris, 1989; West et al., 1993; Piotrkowski, 2000), like counting, reading and writing more than ECEC teachers. Besides, parents place greater emphasis on the behaviors such as compliance with class routines and teacher authorities higher than ECEC and school teachers (West et al., 1993; Piotrkowski, 2000), ECEC teachers rate items of social emotional and approaches to learning higher than parents (Knudsen-Lindauer & Harris, 1989). However, previous findings are mixed when comparing parents' and teachers' beliefs on the relative importance of multiple dimensions of

school readiness skills. It is reported in some research that parents and teachers rate academic skills as less importance than other dimensions, like social emotional and approaches to learning (Knudsen-Lindauer & Harris, 1989; Harradine & Clifford, 1996), while Piotrkowski (2000) reported that parents emphasized basic academic skills more than approaches to learning while school teachers rated conversely. Moreover, previous studies are limited in terms of the methodological rigorous comparison based on the comparable measure across parents, ECEC teachers, and school teachers. Though Piotrkowski (2000) developed scale for measuring school readiness beliefs of parents', ECEC teachers, and school teachers in a high need community, however, the equivalence of the instrument across the three groups of respondents was not evaluated. Thus, prior findings were limited for us to make inferences about the differences among the three groups regarding the latent construct of school readiness in multiple dimensions, instead, we could only draw some conclusions about item-specific differences concerning with school readiness beliefs of the three groups. Finally, to the best of my knowledge, Chinese studies on the school readiness beliefs comparison among these three groups of actors in transition to school are lacking. Thus, to better address the continuity or discontinuities of school readiness beliefs among Chinese parents, kindergarten teachers and elementary school teachers, this study uses multi-group confirmatory factor analysis to ensure the comparability.

Aside from divergences of the school readiness beliefs, specifically between kindergarten teachers and primary school teachers, the pushes and pulls between play-based learning and academic-based learning are major discontinuities identified between kindergarten and first grade pedagogy (Nicholson, 2018； Qin & Hou, 2005； Chen, 2014). From the ontological perspective, such discontinuities were partly embedded in the structure differences such as curriculum and pedagogy, and on the other hand, related to contextual differences such as the practical coherence between teachers across two settings. But beliefs on play-based learning of ECEC and primary school teachers are rarely addressed and compared in existing literatures. Nevertheless, such comparison could shed light on the intervention program of improving continuities between ECEC and first grade for a smooth transition to school. In current study, though not the primary concerns to be addressed, a comparison of play-based learning beliefs between kindergarten and primary school teachers is also made to address the above gap. I hypothesize that kindergarten teachers would be more play-support and less academic-focus than primary school teachers.

Family contexts exert a direct effect on children's transition from ECEC to school from the perspective of bio-ecological theory and conceptual transition models based on the theory. It is theoretically placed in the micro-system surrounding the transition process and directly influence child's transition to school. In the family contexts, parents' beliefs on school readiness constitute an important element, thus, would have an impact on child's transition outcome. Consistent with what Bronfenbrenner proposes in the bio-ecological theory, a more specific model, the conceptual academic socialization model theorizes that parents' beliefs on school readiness have an impact on child's transition outcomes through parenting behaviors such as transition practices. Likewise, the academic socialization model stresses that all elements in the model, including parents' beliefs, transition practices and child's transition outcomes are shaped by socioeconomic and cultural contexts (Taylor et al., 2004). Such effects were demonstrated in some empirical studies. Children's transition outcomes like school readiness skills and the academic achievement growth were found to be positively linked to their parents' school readiness beliefs (Barbarin et al., 2008; Puccioni, 2015), children performed better in the school readiness domains which their parents valued highly (Barbarin et al., 2008). Consequently, exploring parents' beliefs on school readiness could shed light on the family-based intervention transition programs.

Most studies measure and describe parents' readiness beliefs as a continuous variable, while some research revealed that parents' school readiness beliefs could be discontinuous in nature. Some researchers collected qualitative data from a disadvantaged community and showed that several patterns emerged in terms of parents' responses, for instance, some parents emphasize a single domain while others stress multiple domains. The most common combination pattern was highlighting the general knowledge, social competence or self-regulation. Another rare pattern was a very high expectation for academic skills (Barbarin et al., 2008). Some researchers conducted the profile analysis to compare the patterns of school readiness beliefs among parents, ECEC teachers and school teachers in a high-need community and showed that different belief patterns existed among the three groups (Piotrkowski et al., 2000). Like what Tobin et al. (2013) found in their qualitative work, parents emphasized academic readiness skills than teachers did and parents believed that basic knowledge (e.g. Facts and skills) were more important than approaches to learning. However, quantitative evidence is limited concerning with the typologies of parents' school readiness beliefs. Thus, the underlying patterns in parents' and teachers' readiness beliefs regarding multidimensional readiness concepts were not examined adequately in the existing literature. Consequently, to fill in such gap, the present study tries to

examine the subgroups of Chinese parents regarding their school readiness beliefs. Though it is revealed that parents' school readiness beliefs varied by cultural and socioeconomic contexts, such as ethnicity (Puccioni, 2018; Barbarin et al., 2008) and education level (West & Collins, 1993), the association between such beliefs and SES is not adequately understood. In such sense, the current study also probes into the association between patterns of parents' school readiness beliefs and SES to contribute to our knowledge and shed light on family-based intervention across SES backgrounds.

Moreover, prior studies found potential associations among parenting styles, school readiness beliefs and SES. Parenting styles are used to describe the typology of parenting practice features. Regarding parenting style, researchers categorize it into four types, authoritative, authoritarian, permissive and negligent parenting, according to two dimensional of parenting behavior, parental responsiveness and control (Baumrind, 1971; Maccoby & Martin, 1983). Authoritative parenting features high control and high responsiveness, authoritarian parenting is characterized as high control and low responsiveness. Permissive parenting is low in control and high in responsiveness, while negligent parenting is low in both control and responsiveness. A quadrant is created to illustrate the four parenting styles in terms of the above classification (Shown by Figure 3.1).

Xia et al. (2020) in their research on Chinese parents showed associations between parenting style and children's school readiness outcomes. They found a negative association between the authoritarian parenting style and child's socioemotional school readiness outcomes as well as a positive association between the authoritative parenting and school readiness, including both academic and socio-emotional outcomes (Xia et al., 2020). Such association infers the association between parenting styles and parents' school readiness beliefs, which was shed light on by qualitative studies. For instance, findings from well-known qualitative research highlighted that parent from disadvantaged group or from minority ethnic group had a propensity of using authoritarian and directive parenting strategies and emphasized knowledge of facts and self-regulatory readiness skills (e.g., obedience), more than their middle-class counterparts (Lareau, 2002, 2011; Tobin et al., 2013). Similarly, Barbarin et al. (2008) reported in their research that parents in high-need community who hold traditional views of children and authoritarian views of control tend to have narrow views of school readiness and parents who are high in the use of directive strategies have the tendency to emphasize the importance of knowledge for school readiness (Barbarin et al., 2008). Thus, parenting styles could be

related to parents' school readiness beliefs and, in turn, exert impact child's school readiness outcomes. However, such association is still to be tested with quantitative studies.

From a person-centered perspective, we could expect subgroups of parents with distinct combination of school readiness beliefs and parenting style exist in the population. Thus, considering that both parents' school readiness beliefs and parenting style are found to be associated with child's school readiness, with a person-centered approach, in current study, I explore the typologies based on the combination of parents' school readiness beliefs and their parenting style to shed light on the association between parenting styles and school readiness beliefs of parents. Such exploration would be helpful to reveal the complexity of factors associated with child school readiness and how they associate in subgroups of parents. I hypothesize that more authoritarian parenting style could be associated with narrow school readiness beliefs, such as neglecting the importance of socio-emotional readiness and more academic-oriented school readiness beliefs. Such association could result in a certain subgroup of parents holding a combination of narrow school readiness belief with high authoritarian and low authoritative parenting. Besides, I hypothesize that low authoritarian and high authoritative parenting would be associated with broader, less academic-oriented school readiness beliefs. Such association could result in a certain group of parents holding a combination of broader, less academic-oriented school readiness belief with low authoritarian and high authoritative parenting.

	High Control	Low Control
High Responsiveness	**Authoritative** • Firm and consistent control • Monitor and impart clear standards for their children's conduct • Give priority to child's needs and abilities • Implying age appropriate maturity demands • Encourage children to be independent • Attentive • Forgiving • Encouraging autonomy • Offering democratic climate	**Permissive** • Frequent expression of warmth and affection • Low enforcement of rules and authority • High acceptance • Taking the role of friend rather than parent • Allow the child to make their own decision • Minimal punishment
Low Responsiveness	**Authoritarian** • Firm in control practices • Expecting strict, unquestioned obedience to parental authority • Not ready to accept individuality of child • Disobedience is dealt by forceful and punitive discipline • Relative neglect of child's needs • Little communication between parent and child • Highly directive behaviors	**Negligent** • Inattentive behavior • Neglecting the child • Little interaction with child

Figure 3.1 Parenting styles in terms of parental control and responsiveness(Gafoor & Kurukkan, 2014)

Consequently, to address the current research gaps, this study aims to attain three major goals. The first objective is to compare the school readiness beliefs of Chinese parents, ECEC teachers and first grade teachers, and also to compare the play beliefs of kindergarten and primary school teachers. Secondly, the present study aims to delineate in details the patterns of school readiness beliefs of parents in China and examines the association between the patterns of parental school readiness beliefs with SES. Thirdly, the current study also examines the patterns based on the combination of Chinese parents' school readiness beliefs and parenting style, as well as association of SES with the patterns. At last, as a supplement, the present study explores the patterns based on the combination of Chinese parents' school readiness beliefs and their beliefs regarding roles in school readiness, which is seldomly addressed in previous studies.

Generally speaking, this study is more exploratory than confirmatory, thus, some general hypotheses could be made as follows. With respect to the comparison of school readiness beliefs among parents, kindergarten teachers and primary school teachers, I would expect in a more general way that parents and primary school teachers might place higher value on academic skills and lower value on social-emotional skills than kindergarten teachers. Kindergarten teachers and primary school teachers might value approaches to learning more

than parents. And I suppose that kindergarten teachers are holding more play support beliefs than primary school teachers.

Furthermore, the socio-cultural context and educational policy influence in China, specifically the rooted tradition of emphasis on academic achievement and more authoritarian parenting tradition in China, especially derived from the Confucius thoughts, could exert an underlying influence on parents' beliefs on children's school readiness. As one study showed, parents in China had high expectations for children's academic ability and self-discipline (Chan, 2012). I hypothesize that one major group of parents in China might hold more academic-oriented school readiness conceptions with more emphasis on self-regulatory skills. Based on prior research result, I assume that parents in China differ in their views about school readiness and according to research in other cultures, I expect to find three to four groups of parents' school readiness beliefs. As prior studies showed, I hypothesize that the lower SES would be associated with high authoritarian, low authoritative parenting, and school readiness conceptions which emphasize more academic-oriented and self-regulatory skills. Whereas, higher SES would be associated with high authoritative, low authoritarian parenting, and parents' beliefs emphasizing more social-emotional readiness. Given that no specific evidence of the association between permissive, negligent parenting and school readiness beliefs, the research questions and hypotheses will only involve the association between parents' school readiness beliefs and authoritarian, authoritative parenting.

1.2 Formulation of research questions and hypothesis

Specifically, this study advanced the following research questions.

Question 1: Are parents, ECEC teachers and primary school teachers holding different beliefs on school readiness? If so, how are they different?

Question 2: Are ECEC teachers and primary school teachers holding different play beliefs? If so, how are they different?

Question 3a: What are parents' beliefs on child's school readiness like in China? How many groups of parents could we identify in terms of parents' beliefs on child's school readiness and what are these groups like?

Question 3b: How many groups of Chinese parents could be identified based on their school readiness beliefs and parenting styles (authoritarian and authoritative)? What are these groups like?

Question 3c: How many groups of Chinese parents could be identified based on their school readiness beliefs and parenting styles (authoritarian and authoritative)? What are these groups like?

Question 4a: Is membership of parents in some of the groups identified according to parents' beliefs on school readiness explained by SES in China?

Question 4b: Is SES associated with patterns of combination of parents' school readiness beliefs and parenting style? If yes, how is SES associated with profiles based on parents' school readiness beliefs and parenting style?

Question 4c: Is SES associated with patterns of combination of parents' school readiness beliefs and attitudes regarding roles in school readiness? If yes, how is SES associated with profiles based on parents' school readiness beliefs and attitudes regarding roles in school readiness?

Based on the provided literature review summarizing theories and research findings on the topic, I formulate the following hypotheses. I only formulate specific hypotheses for Question 4a and Question 4b, given the descriptive nature of the rest of questions. The hypotheses are as follows.

Hypothesis 1: Parents with higher SES would be more likely to belong to the profiles with less emphasis on academic skills and more emphasis on approaches to learning and social-emotional competence than their counterparts with lower SES status do. Parents with lower SES would be more likely to classified into the profiles with higher emphasis on basic knowledge and self-regulatory skills than their higher SES counterparts.

Hypothesis 2: Parents with higher SES would be more likely to belong to profiles attaching less importance to academic skills and showing higher authoritative parenting, lower authoritarian parenting. Parents with lower SES would be more likely to be classified into profiles characterized as more emphasis on academic skills and displaying lower authoritative parenting, higher authoritarian parenting.

2. DESIGN OF THE STUDY

The present study adopted a cross-sectional design to address the above research questions. I majorly surveyed parents' school readiness beliefs at a certain time point and examine simultaneously their parenting styles, SES, play beliefs and associations among them. Besides, ECEC teachers' and primary school teachers' conceptions on school readiness and play was also investigated. As such beliefs, SES and parenting styles could be relatively stable variables,

thus, to explore their relationship, I could inspect them only once. Meanwhile, to align with the research aim, I did not intend to explore the changes of school readiness beliefs across time, thus the cross-sectional design was appropriate. In this survey research, questionnaires were used as major instruments for data collection.

2.1 Participants

I selected parents, kindergarten teachers of children in the last year of ECEC as research objects by using probability sampling methods. Meanwhile, I selected first-grade teachers also as objects in this study. The rationale is that parents of children in the last year of ECEC are much more likely to think about the transition to school than parents of younger children because the school entry time is approaching. It would be easier to elicit their valid school readiness beliefs. Besides, it is much more time and energy conserving to narrow our respondent selection scope in this way.

To generate representative samples, I drew samples from Chongqing in China, which is one of four municipalities directly under the central government of China (the other three are Beijing, Tianjin, and Shanghai). Chongqing is a mega-city located in the southwestern part of China, with a permanent population of more than 30 million. The per capita gross domestic product (GDP) in Chongqing is around 90 thousand CNY (about 12,000 $) in 2022, ranking the 10th highest in all of the 34 provinces, municipalities, and autonomous region of China (National Bureau of Statistics of China, 2023). As a mega-city, Chongqing covers an area of 82402 square kilometers and much of its administrative area is rural, though the urban population of Chongqing is the 4th largest in China, after Shanghai, Beijing and Shenzhen.

The sampling frame is parents, teachers of kindergarteners before school entry (children aged 5 to 6 years old) in 5660 kindergartens in the city of Chongqing as well as the first-grade teachers of 40 primary schools in one subdistrict of Chongqing. I drew the two-stage probability sample. In the first stage, I planned to randomly select 40 kindergartens in Chongqing to collect representative data. In the second sampling stage, I selected all parents of the preschoolers in last year before school entry in all selected Chinese kindergartens, and administer with the questionnaire (online or paper). For primary school teachers, I only randomly drew 10 primary schools out of 40 in one community of Chongqing city in the first stage. Then I investigated all first-grade teachers in the primary school selected.

I collected data mainly through the online self-completion questionnaires. Before administering the questionnaire survey, I contacted the directors of selected kindergartens in person, or by

phone call to clarify my research purpose and ask for their permission for questionnaire delivery. To draw enough samples as planned, I connected 45 kindergartens in total, however, only 35 kindergartens consented for the questionnaire administration. Online self-completion questionnaires were sent to the director of each kindergarten, who forwarded to all teachers of children in the last year of kindergarten before school entry. Kindergarten teachers filled in the questionnaires for teachers and invited parents to complete the online questionnaires for parents. For parents who are not able to fill in the online questionnaire due to limited access to mobile devices, paper questionnaires were delivered. 9 out of 10 primary schools I contacted gave consent to the administration of questionnaire and responded.

Thus, the final participants were 1204 parents and 245 kindergarten teachers from 35 kindergartens, and 133 first grade teachers in primary school in Chongqing. The response rate of kindergartens is 86%, and that of primary schools is 90%. It's not easy to get the precise response rate of parents, the approximate response rate for parents' questionnaires is 63%, and 76% for kindergarten teachers' questionnaires. 69% for primary school teachers.

2.2 Measures

Multiple measures were used for the survey on both parents and teachers. Both parents and teachers filled out the scales for school readiness beliefs, play beliefs, and attitudes regarding roles in school readiness. Only parents were asked to report the information on socioeconomic status and fill in the parenting styles and dimensions questionnaire. Besides, teachers reported their teaching and professional training experiences. Table 3.1 illustrates the scales and corresponding respondents.

Table 3.1 Scales and respondents in current study

	School readiness beliefs	Parenting style	Play beliefs	Socioeconomic status	Attitudes regarding roles in school readiness
parents	X	X	X	X	X
teachers	X		X		

2.2.1 School readiness beliefs

The current scale used for surveying parents' and teachers' school readiness beliefs was adapted based on the item pool in the existing literature. The battery of items was mainly selected from scales and interview responses in 6 studies(Abry et al., 2015; Barbarin et al., 2008; Piotrkowski et al., 2000; Puccioni, 2018; Sawyer et al., 2022; Mullis & Martin, 2017). Scales in two of these studies were used to measure Chinese respondents' school readiness beliefs or used internationally, which lend insight to the development of scale in my study (Sawyer et al., 2022; Mullis & Martin, 2017). In the forementioned 6 scales, school readiness beliefs were measured in several domains, including beliefs on the importance of child's academic competence, social emotional skills, self-regulatory behaviors, approaches to learning or interest/engagement, as well as self-care/independence, though some studies focused on only 2 to 3 dimensions. Based on the theoretical dimensions of school readiness and the above dimensions for measuring school readiness beliefs in extant literature, the scale in the present study was structured by 5 domains, namely academic, social-emotional, self-regulatory, approaches to learning, and self-care.

Among the items used in the 6 studies, numerous items recur in high frequencies. To select items for the present scale, I firstly counted the occurrences of each item in existing scales and retained items appearing in high frequencies. Besides, I picked in priority items with factor loadings from exploratory or confirmatory factor analysis reported and retained 3 to 5 items with high factor loadings in each domain. In the domain of academic skills consists of two sub-domains, basic and advanced knowledge and academic skills, 9 items were categorized into this domain, including statements about the importance of a child knowing alphabets and characters, colors and shapes, counting and writing, doing simple addition/subtraction, reading simple words and simple stories, recognizing patterns and sorting by size/colors, and having a good vocabulary. The social-emotional domain is comprised of 7 items, the importance of child taking turns and sharing, having good problem-solving skills, being sensitive to other children's feelings, communicating needs/wants verbally, playing well with other children/ getting along with other children, showing respect for others, and using good manner. The self-regulatory domain includes 5 items, which are importance of child following directions, sitting still and paying attention, not being disruptive of the class, completing tasks on time, and not hitting/biting and having self-control. Approaches to learning domain contains 8 items, which are the importance of working independently, being eager to learn, being self-confident, being curious, tolerating frustration/Persevering in tasks, having patience, being willing to be

corrected, and being imaginative or creative. Motor skills/self-care domain is composed of 4 items, including the importance of dressing oneself independently, using pencil to write/using a scissors, jumping/throwing ball/skipping, and stacking blocks by him/herself. The item of 'using pencil to write' was classified under the domain of academic skills in two scales, however, I perceive this item as the fine motor skills of young children rather than academic skills. Consequently, I moved this item to the domain of self-care and motor skills. Besides, I adapted one item according to the Chinese scenario, which is about knowing alphabets and letters. In Chinese language, characters are not related to letters and alphabets and are the most important elements, so I replaced 'letters' with 'characters'(汉字'Hanzi').

The preliminary scale included 33 items covering 5 domains. Translation into Chinese and back-translation were used for adapting the English scale to Chinese version. Then the scale in Chinese were read by experts in Chinese language, kindergarten teachers, and experts in education to make sure the coherence and avoid ambiguity and over-complication of the statements. The scale requires the respondents to rate each item from 1 to 5, standing for not important to very important, according to their own perception on the importance of specific skills for child's school readiness.

2.2.2 Play beliefs

The Parent Play Belief Scale-Chinese Version(Hyun et al., 2021; Jiang & Han, 2016) was employed in this study to measure Chinese parents' beliefs on the value of play for their child's development and school readiness. The PPBS consists of 25 five-point Likert-type items rated by parents from 1 (disagree) to 5 (very much agree). Two subscales, namely Play support and Academic focus, were constructed to measure parents' inclination on play-based or academic-oriented way of supporting their child's development and preparing their child for school readiness. The PPBS was reported with adequate reliability (Cronbach's α= 0.85 for Academic Focus subscale and 0.92 for Play Support subscale) and validity in existing literature (Fogle & Mendez, 2006; Hyun et al., 2021). Play Support subscale contains 17 items and Academic Focus subscale includes 8 items (See Annex I, A3).

Teachers' Play Belief Scale was adapted from the Parent Play Belief Scale by deleting items not applicable for school context and rewording the items. Play Support subscale of teachers' play belief includes 11 items and Academic Focus subscale 6 items (See Annex II, A2).

2.2.3 Parenting styles

Parenting styles are measured by Parenting Styles and Dimensions Questionnaire (PDSQ) (Robinson et al., 2001), which is a five-point Likert-type scale. This questionnaire is composed of 30 items, including three subscales, authoritative and authoritarian parenting style subscale. Authoritative subscale contains 15 items and authoritarian subscale 15 items, and permissive subscale includes 5 items. Authoritarian subscale taps the connection, regulation and autonomy granting dimensions of parenting practices. Authoritarian subscale measures the physical coercion, verbal hostility and non-reasoning/punitive dimensions of parenting practices. Permissive subscale measures parenting practices with low control and regulation (see Annex I, A2). Chinese version of the Parenting styles and Dimension Questionnaire was used in this study.

2.2.4 Attitudes regarding roles in school readiness

Parents' attitudes regarding their roles in school readiness were measured by a scale of 5 items. The items of this scale were adapted from the subscale of parent attitudes regarding their role in school readiness used for in 2007 School Readiness Parent Survey of US Department of Education National Household Education Surveys Program(NCES,2007; Peterson et al., 2018). Parents' attitudes regarding roles in school readiness were measured by 5 Likert-typed items, asking about how parents rate their own and school's responsibilities for child's school readiness (see the Annex I, A4).

2.2.5 Socioeconomic status

Socioeconomic status (SES) was measured by multiple items, including parents' education, occupation, the possession of books at home, household income, as well as the annual family traveling frequency before COVID-19. The items about parents' education, occupation and books in household are well-developed indicators for SES used in Trends in International Mathematics and Science Study（TIMSS） 2019 (Mullis & Martin, 2017). Family travel occurrences annually and household income are added as indicators for SES in current study as well (See the Annex I, B).

2.2.6 Family demographic characteristics and teachers' characteristics

The demographic information of child and parents was inquired in the parents' questionnaire, including child's gender, age, the birth order as well as caregiver's age, etc. Teachers' teaching experiences (teaching years and teaching experience in primary school/ECEC), professional development experiences (training and seminar attendances) as well as student-teacher ratio are reported by teachers as well in the questionnaire.

3.DATA ANALYSIS

Two major analyses were conducted to answer the research questions in the current study, multi-group confirmatory factor analysis (CFA)and latent profile analysis. To answer Question 1, I used multi-group confirmatory factor analysis to check the measurement invariance for the scale of school readiness beliefs among parents, ECEC teachers, and first grade teachers, and then conducted t-tests to compare the latent means of school readiness beliefs among the three groups. Multi-group CFA was conducted for between parents and kindergarten teachers, between kindergarten teachers and first grade teachers, respectively, by the following steps (Kline, 2016). Step 1 was to fit the confirmatory factor analysis model by treating two groups, for instance, parents and kindergarten teachers, as a whole to figure out the overall fit of the measurement model. Step 2 was to fit the confirmatory analysis model respectively for the two groups to check the fit of model in each group. Step 3 was checking the configural variance by assuming the same structure, for instance, the same items load on the same factors between parents and kindergarten teachers. Step 4 was to check the metric variance by setting the factor loadings as equal between two groups. Step 5 was about the scalar variance by restricting the loadings and intercepts as equal between the two groups. Step 6 restricted the factor loadings, intercepts and residuals all as equal between the two groups.

Similarly, to answer Question 2, I first checked the measurement invariance for play belief scale between kindergarten teachers and first grade teachers and then compared the latent means between the two groups if the measurement invariance is confirmed. Besides, to ensure the reliability and validity of the scales used in the current study, I conducted exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and reliability test.

For all confirmatory factor analysis, I relied on the following fit indices to interpret the model fit, including Confirmatory Fit Index (CFI), Tucker-Lewis Index (TLI), Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Mean Square

Residual (SRMR). Generally speaking, the following criteria for the model fit of confirmatory factor analysis were used in this study. RMSEA and SRMR below 0.05, CFI, TLI and GFI equal to or greater than 0.95 for indicates a good fit. RMSEA not above 0.10 (MacCallum et al, 1996) and SRMR below 0.08, CFI, GFI and TLI above 0.90 are indicative of acceptable goodness of fit (Schumacker & Lomax, 2016).

Moreover, given that latent profile analysis is advantageous for addressing research questions concerning qualitatively configural differences that involve many variables, which are not easily realized by other techniques (Spurk et al., 2020), the present study mainly adopted this method for data analysis to answer Question 3 and Question 4. To answer Question 3a, I used latent profile analysis to distinguish between groups of parents based on parents' school-readiness beliefs because this model-based statistics method allows us to identify underlying homogeneous subgroups in the population of parents and capture as much variation as possible between groups. Similarly, latent profile analysis is conducted to answer the Question 3b and 3c. Then, to answer research Question 4a, I tested the hypothesis about predictors (SES and demographic characteristics) for profile membership for different parental school-readiness beliefs by applying the three-step approach (Asparouhov and Muthén, 2014; Vermunt, 2010) of latent profile analysis. The first step was to fit the model and identify the underlying latent classes. The second step was to assign individuals to classes based on posterior probabilities. In the final step, the covariates were used to predict latent profile membership, using the assigned profile as the indicator variable for the new latent class model. To answer the Question 4b and Question 4c, the same three-step approach was adopted.

The following fit indices were adopted for the model comparison of latent profile analysis, Akaike information criterion (AIC), Bayesian information criterion (BIC), Adjusted Bayesian information criterion (aBIC), entropy, etc. For AIC, BIC and aBIC, smaller values indicate a better model fit (Geiser, 2013). I mainly relied on the BIC for model comparison and choice of the appropriate latent profile analysis model, given the good performance and consistency of this index for selecting the correct model with larger sample sizes (Tofighi & Enders, 2008). Besides, I also take into consideration the percentage of cases assigned to each profile and the conceptual interpretation and meaningful classification of profiles (Ram & Grimm, 2009). The latent profile analyses were processed in Mplus 8.6 (Muthén and Muthén, 2017) and multi-group confirmatory factor analysis was processed in R (using packages lavaan, lavaan.survey, blavaan, psych).

CHAPTER 4

RESULTS

1. PSYCHOMETRIC PROPERTIES OF INSTRUMENTS

1.1 School readiness belief scale

School readiness belief scale in the current study was employed for surveying both parents and teachers. The scale was constructed based on the five domains of school readiness, including beliefs on academic, social-emotional, self-regulatory, approaches to learning, and self-care (as mentioned in Chapter 2). Although the items were selected carefully from the existing literature, whether the present scale is well-structured as theoretically postulated was to be tested. Three steps were adopted to measure the psychometric properties of school readiness belief scale. Firstly, to examine the construct in an exploratory way and refine the items before the survey, I conducted exploratory factor analysis with the data of pilot study, including 240 parents of kindergarteners in the last year before school entry. Secondly, as the scale of school readiness beliefs was used both for parents and teachers, multi-group confirmatory factor analysis was performed to check the validity and measurement invariances, with a total sample of 1445 (245 kindergarten teachers and 1204 parents). Thirdly, reliability of this scale was inspected.

1.1.1 Exploratory factor analysis for school readiness scale

According to the result of exploratory factor analysis (EFA), Barlett's Test was significant(χ^2= 6183.844, df=171) and KMO values was 0.95, which indicates that the data fit the exploratory factor analysis very well. The scree plot shows that 3 to 4-factor solution is appropriate. Based on our 5-dimension theoretical construct, given that the self-care dimension items were not mentioned in other scales but mostly from interview responses, I excluded the 4 items for exploratory factor analysis and selected a 4-factor oblimin solution with oblique rotation. The reason why I chose the oblique rotation is that the factors of school readiness beliefs are hypothesized as correlated with each other. The criteria for the item retention were that the factor loading of item should be greater than 0.40 and items without cross-domain loading. Besides, to refine the items and generate a parsimonious scale, only 3 to 5 items were retained in each factor. The final 4-factor solution included 14 items and the four factors were named as

academic competence (3 items), approaches to learning (3 items), self-regulatory competence (4 items), and social-emotional competence (4 items). The proportion of total variance accounted are 17% for factor of academic competence, 19% for approaches to learning, 24% for self-regulatory competence, and 25% for social-emotional competence. The factor loadings and Cronbach alphas for school readiness belief scale are reported in Table 4.1. All Cronbach alphas suggest that the reliability of the school readiness belief scale is good.

Table 4.1 Exploratory factor analysis for school readiness belief scale

		EFA Factor Loadings
Academic competence (Variance = 17%, Cronbachα=0.91)		
Item 12	Writes words other than his/her name. 会写自己名字以外的字。	0.85
Item 13	Knows most letters of alphabets/many characters. 认识大部分拼音字母/许多汉字。	0.82
Item 15	Counts by himself/herself. 会自己数数。	0.62
Approaches to learning (Variance =19%, Cronbachα=0.93)		
Item 3	Is self-confident. 对自己有自信。	0.95
Item 4	Has patience. 有耐心。	0.91
Item 2	Is curious, asks lots of questions about how and why. 好奇，问很多为什么，怎么样的问题。	0.68
Self-regulatory competence (Variance = 24%,		

Cronbachα=0.97)		
Item 19	Is not disruptive of the class. 不扰乱课堂。	0.99
Item 18	Sits still and pays attention to teacher. 能坐好并注意听讲。	0.91
Item 20	Completes tasks on time. 按时完成任务。	0.61
Item 17	Follows directions. 听从指令。	0.59
Social emotional competence (Variance = 25%, Cronbachα=0.95)		
Item 32	Takes turns and shares. 会轮流和分享。	0.90
Item 30	Communicates needs/wants verbally. 能口头表达自己的需要。	0.83
Item 26	Has good problem-solving skills with peer relations. 会解决同伴交往中遇到的问题。	0.78
Item 24	Shows respect for others. 尊重他人。	0.65
Whole scale (Cronbachα=0.97)		

1.1.2 Multi-group confirmatory factor analysis for school readiness scale

1.1.2.1 Multi-group CFA for school readiness scale between parents and kindergarten teachers

As school readiness beliefs were measured both for parents and kindergarten teachers, the measurement invariances were checked between two groups by performing the multi-group CFA. Before the multi-group CFA, I firstly ran the confirmatory factor analysis for school

readiness scale using parents' samples, given that parents' samples were much larger. Table 4.2 presents the factor loadings of items by confirmatory factor analysis. Model 1 shows good fit indices regarding CFI=0.957(>0.95), TLI=0.941(>0.90), and SRMR=0.054(<0.06), but marginally acceptable RMSEA=0.10 (Hooper et al., 2008). After checking the modification indices, the correlation of errors between Item 12 and Item 13 is the biggest one which would improve the model fit significantly. Considering that both items are loading on academic competence domain and both about the content-based learning in primary school, it is theoretically related to each other, thus I added this path of correlation between the errors of item 12 and item 13 and ran the new model, which is model 2. As shown in Table 4.2, Model 2 demonstrates significant improvement in fit indices, which are all within a range of good fit except that RMSEA is acceptable.

Following the 6 steps of Multi-group CFA (see Chapter 3, Section 3), I compared the change of fit indices to determine whether the school readiness belief scale shows measurement invariances for parents and kindergarten teachers. Table 4.3 demonstrates the comparison of fit indices in each step. I used the change of 0.01 of CFI (ΔCFI<0.01) as the threshold for the measurement invariances (Kline,2016; Kim et al., 2017). Table 4.3 presents the factor loadings of items by confirmatory factor analysis.

As Table 4.3 shows, the fit indices of the overall model combining the two groups are within the range of being acceptable, among which some indicate excellent fit. For instance, CFI=0.978(>0.95) and SRMR=0.025(<0.06) are good and RMSEA=0.068(0.06-0.08) is acceptable. The configural model showed good fit with CFI=0.971, SRMR=0.027, and RMSEA (0.081) is acceptable. Thus, the configuration of the school readiness belief scale is invariant between parents and kindergarten teachers. Then, by comparing the metric invariance model with the configural invariance model, the change of CFI is less than 0.01, which indicates that the factor loadings are equal between two groups. Likewise, the changes of CFI between scalar invariance model and metric model, between metric model and strict model are both less than 0.01, which demonstrate that the intercepts and residuals of items are equal between parents and kindergarten teachers. In overall, the result of multi-group confirmatory factor analysis showed that the school readiness belief scale was invariant between parents and kindergarten teachers regarding its validity. The latent means were calculated based on the factor loadings and compared between parents and kindergarten teachers then (See Chapter 4, Section 3.4, Table 4.23).

Table 4.2 Fit indices of confirmatory factor analysis model for school readiness belief scale

	χ^2	df	CFI	TLI	GFI	RMSEA	SRMR
Model 1	259.011	71	0.957	0.945	0.864	0.10 [0.088,0.114]	0.054
Model 2	193.874	70	0.972	0.963	0.900	0.083 [0.069,0.096]	0.030

Table 4.3 Confirmatory factor analysis loadings for school readiness belief scale

		CFA Factor Loadings
Academic competence (Variance=17%)		
Item 12	Writes words other than his/her name. 会写自己名字以外的字。	0.69
Item 13	Knows most letters of alphabets/many characters. 认识大部分拼音字母/许多汉字。	0.67
Item 15	Counts by himself/herself. 会自己数数。	0.94
Approaches to learning (Variance=19%)		
Item 3	Is self-confident. 对自己有自信。	0.93
Item 4	Has patience. 有耐心。	0.94

Item 2	Is curious, asks lots of questions about how and why. 好奇，问很多为什么，怎么样的问题。	0.77
Self-regulatory competence (Variance=24%)		
Item 19	Is not disruptive of the class. 不扰乱课堂。	0.95
Item 18	Sits still and pays attention to teacher. 能坐好并注意听讲。	0.94
Item 20	Completes tasks on time. 按时完成任务。	0.95
Item 17	Follows directions. 听从指令。	0.83
Social emotional competence (Variance=25%)		
Item 32	Takes turns and shares. 会轮流和分享。	0.87
Item 30	Communicates needs/wants verbally. 能口头表达自己的需要。	0.92
Item 26	Has good problem-solving skills with peer relations. 会解决同伴交往中遇到的问题。	0.88
Item 24	Shows respect for others. 尊重他人。	0.91
Item 12~~Item 13		0.54

Table 4.4 Fit indices of multi-group confirmatory factor analysis models for school readiness belief scale between parents and kindergarten teachers

	χ^2	df	CFI	RMSEA	SRMR
Overall fit	8886.89	91	0.978	0.068 [0.059,0.077]	0.025
Parents fit	225.219	70	0.970	0.081	0.027

				[0.069,0.093]	
Kindergarten teacher fit	178.518	70	0.971	0.080	0.031
				[0.065,0.094]	
Configural model	403.737	140	0.971	0.080	0.029
				[0.071,0.089]	
Metric model	421.597	150	0.970	0.079	0.042
				[0.070,0.088]	
Scalar model	485.749	160	0.964	0.083	0.050
				[0.075,0.092]	
Strict model	564.312	174	0.957	0.088	0.054
				[0.080,0.096]	

1.1.2.2 Multi-group CFA for school readiness scale between kindergarten teachers and primary school teachers

The multi-group CFA was also conducted for checking the measurement invariance of school readiness belief scale between kindergarten teachers and primary school teachers. Table 4.5 shows the fit indices of multi-group CFA. The overall model shows a good fit with reference to the CFI (>0.95) and SRMR (<0.05), and the RMSEA is acceptable. The fit indices of models for primary school teachers show good fit regarding CFI (=0.945) and SRMR (=0.05). However, the RMSEA of model for primary school teachers is 0.114, which is poor. The small sample size of primary school teachers, which is only 133, less than 200, could be the reason of the poor RMSEA of the model. For model of kindergarten teacher, the CFI (=0.949) and SRMR (=0.05), and the RMSEA is marginally acceptable. The configural model also shows good fit with CFI=0.947, SRMR=0.05, however, SRMEA (0.109) is unacceptable. Though the changes of CFI, between metric model and configural model, between scalar invariance model and metric model, are both less than 0.01, the RMSEA for the models are all above 0.10. Thus, in overall, the result of multi-group confirmatory factor analysis shows that the measurement invariance is not supported between primary school teacher and kindergarten teacher. Such

result implies that the school readiness belief scale used in the current study does not measure the same latent construct for kindergarten teachers and primary school teachers as I expected.

Table 4.5 Fit indices of multi-group confirmatory factor analysis models between teachers

Model	χ^2	df	CFI	RMSEA	SRMR
Overall Model	329.163	71	0.956	0.098	0.047
Primary School Teacher Model	194.341	71	0.945	0.114	0.05
Kindergarten Teacher Model	263.778	71	0.949	0.105	0.05
Configural Model	458.119	142	0.947	0.109	0.05
Metric Model	473.019	152	0.947	0.106	0.055
Scalar Model	505.113	162	0.943	0.106	0.056
Strict Model	651.658	176	0.921	0.12	0.057

1.2 Parents' attitudes regarding roles in school readiness

1.2.1 Exploratory factor analysis for parents' attitudes regarding roles in school readiness

The exploratory factor analysis of parents' attitudes regarding roles in school readiness scale yielded a two-factor solution. The Barlett's Test was significant (χ^2= 364.65, df=10) and KMO values was 0.66, which is acceptable for exploratory factor analysis. Parallel analysis and scree plot suggested 2 factors for factor analysis. According to the theoretical construct of this scale, two-factor structure was appropriate for factor analysis. The criteria for retaining the items were two folds. The loadings of the item should be no less than 0.40 and the item should only load on one factor. The 2-factor solution is consistent with the theoretical construct. Factor 1, including Item 1, item 2 and item 3, is named as family role and factor 2 as school role, which contains item 4 and 5. Table 4.6 shows the exploratory factor analysis result and reliability for this scale. Reliability of the whole scale is acceptable, with Cronbach α=0.77. And the two subscales both show good reliability.

Table 4.6 Exploratory factor analysis for attitudes regarding roles in school readiness scale

		EFA Factor loadings
Family role(Variance=0.48, Cronbach α=0.91)		
Item1	Preparing my child for school is important to me and my family. 为孩子做好入小学的准备对于我和家人来说是一件重要的事情。	0.92
Item 2	Preparing my child for school will help my child succeed later in school 为孩子做好入小学的准备能够帮助他/她以后学业取得成功。	0.84
Item 3	Preparing my child for school is my responsibility as a parent 为孩子做好入学准备是我作为父母的责任。	0.92
School role(Variance=0.32, Cronbach α=0.87)		
Item 4	Preparing my child for school is the responsibility of kindergarten teachers 为孩子做好入学准备是幼儿园的责任。	0.97
Item 5	Preparing my child for school is the responsibility of the primary school 为孩子做好入学准备是小学的责任。	0.80

1.2.2 Confirmatory factor analysis for parents' attitudes regarding roles in school readiness

Confirmatory factor analysis for attitudes regarding roles in school readiness showed that CFA factor loadings of the items ranged from 0.86 to 0.97, indicating high factor loadings. The

confirmatory factor analysis factor model shows a good fit, with CFI=0.99, TFI=0.98, GFI=0.98, RMSEA=0.061[0,0.17], SRMR=0.02.

Table 4.7 Confirmatory factor analysis for attitudes regarding roles in school readiness scale

		CFA Factor loadings
Family role		0.87
Item1	Preparing my child for school is important to me and my family. 为孩子做好入小学的准备对于我和家人来说是一件重要的事情。	
Item 2	Preparing my child for school will help my child succeed later in school 为孩子做好入小学的准备能够帮助他/她以后学业取得成功。	0.86
Item 3	Preparing my child for school is my responsibility as a parent 为孩子做好入学准备是我作为父母的责任。	0.86
School role		
Item 4	Preparing my child for school is the responsibility of kindergarten teachers 为孩子做好入学准备是幼儿园的责任。	0.97
Item 5	Preparing my child for school is the responsibility of the primary school 为孩子做好入学准备是小学的责任。	0.86

1.3 Parenting style scale

Parenting style scale was used in present study for measuring characteristics of parenting regarding the responsiveness and control. Only the authoritarian and authoritative subscales were used. As parenting style scale was prevalently used in both international and Chinese studies, I only conducted the confirmatory factor analysis to determine its validity for the population of the current study. Besides, reliability for the two subscales was also tested. Reliability coefficient of authoritarian subscale is 0.91, which shows excellent reliability (>0.90). And the authoritative subscale also shows good reliability (Cronbach α=0.87).

1.3.1 Confirmatory factor analysis

1.3.1.1 Authoritarian subscale

For the authoritarian subscale, confirmatory factor analysis shows good construct validity. The original model shows good fit according to the CFI value (CFI=0.912), however, RMSEA=0.102, suggesting marginally acceptable fit. Thus, to achieve better model, I moved item 2 according to the modification indices and rerun the model. Model 2 shows good fit. Most of the fit indices fall into the range of good fit, with CFI=0.933, TLI=0.91, GFI=0.92, SRMR=0.05, RMSEA value (0.097[0.082,0.11]) is acceptable as well. Factor loadings of authoritarian scale is shown in Table 4.9.

Table 4.8 Fit indices of confirmatory factor analysis for authoritarian parenting subscale

	χ^2	df	CFI	TLI	GFI	RMSEA	SRMR
Model 1	226.843	51	0.912	0.886	0.864	0.102 [0.089,0.116]	0.055
Model 2	168.084	41	0.930	0.906	0.915	0.097 [0.082,0.112]	0.048

Table 4.9 Confirmatory factor analysis for authoritarian parenting subscale

		CFA loadings	Factor
Physical coercion			
Item6	Yell or shout when child misbehaves. 当孩子不听话的时候打他/她屁股。	0.722	

Item 19	Grab child when being disobedient. 当孩子不服从的時候，会抓住孩子，不让他/她乱动。	0.648
Item 32	Slap child when the child misbehaves. 当孩子行为不当的时候，用手掌拍打孩子。	0.794
Verbal hostility		
Item 13	Yell or shout when child misbehaves. 当孩子做错的時候，对着孩子吼叫。	0.767
Item 16	Explode in anger towards child. 对孩子大发雷霆。	0.805
Item 23	Scold and criticize to make child improve. 为了促使孩子进步，会责备及批评他/她。	0.449
Item 30	Scold and criticize when child's behavior doesn't meet our expectations. 当孩子未能达到我的期望，会责骂或批评他/她。	0.694
Punitive dimension		
Item 4	When child asks why (he)(she) has to conform, state: because I said so, or I am your parent and I want you to. 当孩子问他/她为什么必须服从的时候，对孩子说："因为这是我说的"，或"因为我是你的父母，我想让你这样做。"	0.576
Item 10	Punish by taking privileges away from child with little if any explanations. 几乎不进行任何解释，就把孩子原本享有的特权拿走，借以惩罚孩子。	0.742

Item 26	Use threats as punishment with little or no justification. 在沒有充分理由的情况下，用威胁来惩罚孩子。	0.812
Item 28	Punish by putting child off somewhere alone with little if any explanations. 在沒有充分理由的情况下，把孩子单独放在某个地方以示惩罚，例如不让出房门。	0.848

1.3.1.2 Authoritative subscale

For the authoritative subscale, the confirmatory factor analysis model shows good construct validity. All fit indices fall into the range of goodness of fit, with CFI=0.961, TLI=0.953, GFI=0.932, RMSEA=0.057[0.045,0.069], and SRMR=0.04. Factor loadings of authoritative scale is shown in Table 4.10.

Table 4.10 Confirmatory factor analysis for authoritative parenting subscale

		CFA Factor loadings
Connection		
Item1	Responsive to child's feelings or needs. 会回应孩子的感受及需要。	0.649
Item 7	Encourage child to talk about the child's troubles. 鼓励孩子说出他/她的烦恼。	0.758
Item 12	Give comfort and understanding when child is upset. 当孩子伤心难过時，给予理解和安慰。	0.755
Item 14	Give praise when child is good. 当孩子表现好的時候给予表扬。	0.699
Item 27	Have warm and intimate times together with child. 与孩子之间有关系亲密温暖的时刻。	0.703

Regulation		
Item 5	Explain to child how we feel about the child's good and bad behavior. 向孩子解释我们对他/她好的行为和坏的行为有怎样的感受。	0.666
Item 11	Emphasize the reasons for rules. 强调规则背后的理由。	0.602
Item 25	Give child reasons why rules should be obeyed. 向孩子解释为什么要遵守规则。	0.777
Item 29	Help child to understand the impact of behavior by encouraging child to talk about the consequences of his/her own actions. 通过鼓励孩子谈论自己的行为后果，来帮助孩子理解他/她的行为所造成的影响。	0.733
Item 31	Explain the consequences of the child's behavior. 向孩子解释他/她的行为会产生的后果。	0.768
Autonomy		
Item 3	Take child's desires into account before asking the child to do something. 在要求孩子做某件事前，会考虑他/她的意愿。	0.681
Item 9	Encourage child to freely express (him/herself) even when disagreeing with parents. 即使跟孩子跟父母意见不同，也鼓励他/她表达自己的想法。	0.734
Item 18	Take into account child's preferences in making plans for the family.	0.700

	在做家庭计划时，会考虑孩子的喜好。	
Item 21	Show respect for child's opinions by encouraging child to express them. 鼓励孩子表达自己的想法以示尊重他/她的意见。	0.800
Item 22	Allow child to give input into family rules. 让孩子对家规提意见。	0.581

1.4 Parent play belief scale

The original Parent Play Belief scale (Chinese version) was used for Chinese immigrant parents in USA (see Chapter 3, Section 2.2.2), as the participants of current study were Chinese parents, it was necessary to perform the confirmatory factor analysis to test the construct validity of this measure for this specific population. Given that the play belief scale for teachers in the present study was adapted from the Parent Play Belief scale and the two scales were different in terms of item numbers, thus, confirmatory factor analysis of play belief scale for teachers were conducted as well.

I firstly ran the confirmatory factor analysis for parent play belief scale. As Table 4.11 shows, model 1 which includes all 25 items does not fit well with most fit indices falling into the acceptable range, CFI=0.849(>0.80), TLI=0.849(>0.80). And two indices are poor according to the fit indices criteria, GFI=0.706(<0.80), RMSEA=0.11(>0.10). Considering that the original scale contains 17 items and 8 items for each factor, which could be more parsimonious. Thus, after checking the modification indices, I excluded items with reference to the modification indices values more than 20 and the size of factor loadings, including item 10, item 4, item7, item 6, item 13, item 14, item 17, item 23, item3. Then I ran model 2, which demonstrated significant improvement in fit indices, which are all within a range of good fit except that RSMEA is acceptable. Table 4.12 presents the factor loadings of items by confirmatory factor analysis for parent play belief scale. The parent play belief scale showed a good reliability with the Cronbach α=0.88, the reliability coefficient for play support subscale is 0.95 and that for academic support subscale is 0.89.

Table 4.11 Fit indices of confirmatory factor analysis model for parent play belief scale

	χ^2	df	CFI	TLI	GFI	RMSEA	SRMR
Model 1	1030.577	274	0.849	0.835	0.706	0.110 (0.103,0.117)	0.062
Model 2	259.018	103	0.939	0.929	0.878	0.082 (0.069,0.094)	0.057

Table 4.12 Confirmatory factor analysis for parent play belief subscales

		CFA Factor loadings
Play support(Cronbach α=0.95)		
Item1	Play can help my child develop social skills, such as cooperating and making friends.玩耍能提高孩子的社交能力	0.771
Item 2	I have a lot of fun with my child when we play together.我和孩子一起玩耍的过程中享受到了很大的乐趣	0.765
Item 5	I can help my child learn to control his or her emotions during play.在玩耍过程中，我可以教会并帮助孩子控制他/她的情绪	0.740
Item 8	Play can help my child develop better thinking abilities.玩耍有助于提高孩子的思考能力	0.864
Item 9	Playing with my child is one of my favorite things to do.和孩子玩耍是我最喜欢做的事情之一	0.750

Item 11	Play helps my child learn how to express his or her feelings.玩耍能帮助孩子表达他/她的想法和感受	0.869
Item 12	Play is a fun activity for my child.玩耍给孩子带来乐趣	0.837
Item 15	Through play, my child develops new skills and abilities.通过玩耍，孩子可以掌握新的知识和能力	0.849
Item 16	Playing at school will help my child get ready for school.孩子在学校玩耍可以帮助孩子为小学做好准备	0.732
Academic support(Cronbach α=0.89)		
Item 18	Play does not help my child learn academic skills like counting or recognizing letters.玩耍并不能帮助孩子获得学习技能，如数数、认字等	0.801
Item 19	I would rather read with my child than play together.我宁愿和孩子一起阅读而不是和孩子一起玩耍	0.777
Item 20	Play does not influence my child's ability to solve problems.玩耍对孩子解决问题的能力毫无帮助	0.890
Item 21	It is more important for my child to have good academic skills than to play well with other children.孩子掌握良好的学习技能比能够和别人融洽地玩耍更为重要	0.684
Item 22	Playtime is not a high priority in my home.玩耍不是我们家最重要的事情	0.718
Item 24	I do not think it is very important for other family members to play with my child.我认为家里的其他人和孩子的玩耍并不是很重要	0.780
Item 25	I do not think my child learns important skills by playing.我不认为孩子会在玩耍中学到有用的知识和技能	0.736

1.5 Play belief scale for teachers

The play belief scale for teachers was adapted from the parent play belief scale and contains 17 items. To validate the construct of this scale, confirmatory factor analysis was conducted.

1.5.1 Confirmatory factor analysis of play belief scale for kindergarten teachers

I firstly ran the confirmatory factor analysis for play belief scale for kindergarten teachers with the 17 items loading in two factors, play support and academic support factor. As Table 4.13 shows, model 1 which includes all 17 items fit poorly with all fit indices being out of the acceptable range, CFI=0.808(>0.80), TLI=0.779(<0.80), GFI=0.706(<0.80), RMSEA=0.16(>0.10). Considering that the original scale contains 11 items for play support subscale and 6 items for academic support subscale, which could be more parsimonious, I excluded items with modification indices values more than 30, including item2, item16, item3, item14, item4, and item8. Model 2 demonstrates significant improvement in fit indices, which are all within a range of good fit except that RMSEA is acceptable. Table 4.14 presents the factor loadings of items by confirmatory factor analysis of play belief scale for teachers as well as the reliability coefficients of subscales.

Table 4.13 Fit indices of confirmatory factor analysis model for parent play belief scale

	Chi squared	df	CFI	TLI	GFI	RMSEA	SRMR
Model 1	873.706	118.00	0.808	0.779	0.649	0.162 [0.152,0.172]	0.084
Model 2	97.882	43.00	0.970	0.961	0.926	0.072 [0,053,0.091]	0.066

Table 4.14 Confirmatory factor analysis for play belief scale of teachers

		CFA Factor loadings
Play support（Cronbach α=0.92）		
Item1	Play can help children develop social skills, such as cooperating and making friends. 玩耍能提高儿童的社交能力。	0.759
Item 5	Playing at home will help children get ready for school. 儿童在家玩耍可以帮助儿童为小学做好准备。	0.579
Item 6	Play can help children develop better thinking abilities. 玩耍有助于提高儿童的思考能力。	0.914
Item 7	Play helps children learn how to express their feelings. 玩耍能帮助儿童表达他/她的想法和感受。	0.901
Item 9	Through play, children can develop new skills and abilities. 通过玩耍，儿童可以掌握新的知识和能力。	0.845
Item 10	Playing in kindergarten will help a child get ready for school. 儿童在幼儿园玩耍可以帮助孩子为小学做好准备。	0.743
Item 11	It is important for a teacher to participate in play with children. 参与儿童的玩耍对教师来说很重要。	0.740
Academic support（Cronbach α=0.89）		
Item 12	Play does not help children learn academic skills like counting or recognizing letters. 玩耍并不能帮助儿童获得学习技能，如数数、认字等。	0.760
Item 13	Play does not influence child’s ability to solve problems. 玩耍对儿童解决问题的能力毫无帮助。	0.944

Item 15	Reading to children is more worthwhile than playing with them. 我认为和儿童一起阅读比和儿童一起玩耍更有价值。	0.790
Item 17	I do not think children learns important skills by playing. 我不认为儿童会在玩耍中学到有用的知识和技能。	0.806

1.5.2 Multi-group CFA for play belief scale between kindergarten and primary school teachers

For the comparison of play belief between kindergarten and primary school teachers, multi-group CFA of play belief scale between two groups is performed. With the above 11 items shown in Table 4.15, I firstly ran the overall model by combining the two groups. The overall model with mean structure between two groups show good fit regarding CFI (=0.955), SRMR (=0.067) and RMSEA (=0.093) are acceptable. However, the model fit dropped dramatically for the model of primary school teachers, with CFI=0.925, RMSEA=0.128 and SRMR=0.088. RMSEA is over 0.10 and unacceptable. Thus, according to the modification indices, I excluded two items, item 5 and item 6, which leads to only 5 items for play support subscale, in comparison with the original 7 items shown in Table 4.14. Then I ran the multi-group CFA with the new model, following the procedure of measurement invariance test. The results of the measurement invariance test for kindergarten teachers and primary school teachers are shown in Table 4.15 below. As shown in the table, all models show excellent fit regarding the CFI and SRMR. The model for primary school teacher shows good fit with CFI=0.965, RMSEA is less than 0.10 and SRMR is less than 0.80, indicating acceptable fit. Moreover, considering the small sample size of primary school teacher, such drop in fit could be explained. The changes of CFI from configural model to metric, scalar and strict model are all less than 0.01, suggesting measurement invariance of play belief scale between kindergarten and primary school teachers. Thus, the comparison of latent means of play beliefs of two groups is performed then and the results are shown in Section 4.3 (See Table 4.27).

Table 4.15 Multi-group confirmatory factor analysis for play belief scale of teachers

Model	X^2	df	CFI	RMSEA	SRMR
Overall Model	68.386	26	0.981	0.066	0.046
Primary School Teacher Model	56.296	26	0.965	0.094	0.07
Kindergarten Teacher Model	32.929	26	0.995	0.033	0.04
Configural Model	89.226	52	0.983	0.062	0.05
Metric Model	101.596	59	0.981	0.062	0.058
Scalar Model	109.692	66	0.98	0.059	0.059
Strict Model	119.506	75	0.98	0.056	0.057

1.6 Socioeconomic status scale

Socioeconomic status (SES) is measured in this study by highest level of occupation of parents, highest level of education of parents, number of children's books in the home, number of books in the home, and the household income. The composite score of the above items is used for measuring SES. Table 4.16 shows the component loadings for each item of socioeconomic status by principal component analysis. The reliability coefficient of SES scale is 0.81, which is good. The percent of variances explained by the principal component is 52%.

Table 4.16 Principal components analysis of socioeconomic status scale

Items	Component loadings
Highest education level of parents	0.44
Highest occupation level of parents	0.38
Household income	0.40
Number of books in home	0.42
Number of child books in home	0.44
Annual traveling occurrences before COVID19	0.36

In overall, based on the above analysis, the measures used in current study show good construct validity and reliability. The school readiness belief scale shows measurement invariance

between parents and kindergarten teachers, however, does not hold between kindergarten teachers and first grade teachers. The play belief scale shows measurement invariance between kindergarten teachers and first grade teachers. Thus, the comparison of latent means of school readiness belief could be made between parents and kindergarten teachers, likewise, the difference inference of play beliefs between kindergarten teachers and first grade teachers could be made at the latent level.

2. CHARACTERISTICS OF PARTICIPANTS

2.1 Characteristics of kindergarten teacher participants

Table 4.17 describes the characteristics of kindergarten teachers participating in current study. The variables include demographic information about kindergarten teachers, their working experience and professional development experience concerning transition to school, etc. 245 kindergarten teachers participate in present study, mean age is 29 years old and mean teaching years are 8.73. 13.5% of kindergarten teachers have the working experience in primary school. 74.3% of kindergarten teachers attended training on transition to school and 47.3% of them participated in seminars jointly with primary school teachers.

Table 4.17 Characteristics of kindergarten teachers and classes(N=245)

Characteristics of kindergarten teachers	M(SD)/N(%)
Age	29(10)
Education	
Post-secondary, non-tertiary education	18(7.3%)
Short-cycle tertiary education	101(41.2%)
Bachelor's and equivalent level	124(50.6%)
Postgraduate degree and above	2(0.8%)
Teaching years	8.73(8.02)
Working experience in primary school	
Yes	33(13.5%)

	No	212(86.5%)
Years working in primary school		1(3.3)
Training on transition to school		
	Yes	182(74.3%)
	No	63(25.7%)
Training occurrences		1.29(1.03)
Seminar attending		
	Yes	116(47.3%)
	No	129(52.7%)
Seminar attending times		0.67(0.83)
Public or private		
	Public	212(86.5%)
	Private	33(13.5%)
Urbanicity		
	Rural	44(18%)
	Urban	201(82%)
Class size		33.31(7.86)

2.2 Characteristics of primary school teacher participants

Table 4.18 describes the characteristics of primary school teachers participating in current study. 133 first grade teachers participate in present study, and their mean age is 36 years old and mean teaching years are 15. 15.8% of primary school teachers have the working experience in kindergarten. 35.3% of primary school teachers attended training on transition to school and 33.8% of them participated in seminars jointly with kindergarten teachers.

Table 4.18 Characteristics of kindergarten teachers and classes(N=133)

Characteristics of kindergarten teachers		M(SD)/N(%)
Age		36.43(9.53)
Education		
Short-cycle tertiary education		25(18.8%)
Bachelor's and equivalent level		108(81.2%)
Teaching years		15.03(10.54)
Working experience in kindergarten		
	Yes	21(15.8%)
	No	112(84.2%)
Years working in kindergarten		0.89(2.78)
Training on transition to school		
	Yes	47(35.3%)
	No	86(64.7%)
Training occurrences		0.52(0.81)
Seminar attending		
	Yes	45(33.8%)
	No	88(66.2%)
Seminar attending times		0.48(0.76)
Public or private		
	Public	133(100%)
Urbanicity		
	Rural	22(16.5%)
	Urban	111(83.5%)
Class size		52.59(10.45)

2.3 Demographic characteristics and socioeconomic status of parents and child

The demographic characteristics and socioeconomic background of parents and child participating in the current study are shown in Table 4.19. Average age of respondents for parents' questionnaire was 31 years old, the numbers of boys and girls were quite close, with 51% were boys. The sample consisted of 1204 parents and their child with an average age of 71.76 months. 55% percent of children were the only child or first born in their family. Information about socioeconomic status was also displayed in table 4.19. The mean of composite score for SES was 21.65.

Table 4.19 Demographic characteristics and socioeconomic status(N=1204)

Demographic characteristics and socioeconomic background	M(sd)/N(%)
Age of respondent	31.00(5.88)
Gender	
Boy	616(51%)
girl	588(49%)
Age of child in months	71.76（6.34）
Birth order	
Only child	416(34%)
First born but not the only child	252(21%)
Second born	507(42%)
Third born	24(2%)
other	5(0.4%)
Parents' highest level of education	
Primary education	8(1.7%)
Lower secondary education	115(15.3%)

Upper secondary education	259(24.1%)
Post-secondary, non-tertiary education	275(20.6%)
Bachelor's or equivalent level	467(33.2%)
Master's degree	70(4.4%)
Doctor's degree	10(0.6%)
Parents' highest level of occupation	
Has never worked outside home for pay, general laborer, or semi-professional (skilled agricultural or fishery worker, craft or trade worker, plant or machine operator)	76(6%)
Clerical (clerk or service or sales worker)	335(27.8%)
Small business owner	194(16.1%)
Professional (corporate manager or senior official, professional, or technician or associate professional)	599(49.8%)
Number of books at home	
0-10	152(12.6%)
11-25	254(21.1%)
26-100	481(40.0%)
101-200	165(13.7%)
More than 200	152(12.6%)
Number of child books at home	
0-10	156(13.0%)
11-25	265(22.0%)
26-100	291(24.2%)
101-200	285(23.7%)
More than 200	207(17.2%)

Annual traveling occurrences before COVID-19	
Never	361(30.0%)
Once	383(31.8%)
Twice to three times	371(30.8%)
More than three times	89(7.4%)
Annual household income	
less than USD 776 (<5000 RMB)	39(3.2%)
USD 776-3104 (5000-20000 RMB)	135(11.2%)
USD 3105-7761 (20001-50000 RMB)	135(11.2%)
USD 7762-12417 (50001-80000 RMB)	135(11.2%)
USD 12418-15522 (80001-100000 RMB)	194(16.1%)
USD 15522-21828 (100001-150000 RMB)	177(14.7%)
USD 21829-29104 (150001-200000 RMB)	159(13.2%)
USD 29105-43656(200001-300000 RMB)	128(10.6%)
More than USD 43656 (More than 300000 RMB)	102(8.5%)
Socioeconomic status(SES)	21.65(5.70)

3. COMPARISON OF SCHOOL READINESS BELIEFS AMONG PARENTS, KINDERGARTEN TEACHERS AND PRIMARY SCHOOL TEACHERS

3.1 Kindergarten teachers' school readiness beliefs

The descriptive analysis of kindergarten teachers' school readiness beliefs showed that they scored high concerning the importance of their child's competence across four domains of school readiness. In general, kindergarten teachers scored 4.46 on average concerning school

readiness beliefs as a whole. Across the four domains, kindergarten teachers rated the importance of academic competence as lower than other domains, with mean score of 3.87. While the social emotional competence was considered as the most important in comparison with other domains, with mean score of 4.68. Table 4.20 shows the detailed descriptive statistics for kindergarten teachers' school readiness beliefs.

Table 4.20 Descriptive statistics for kindergarten teachers' school readiness beliefs

Domain	Number of items	Min	Max	Factor sum score	Item average score
Academic competence	3	3	15	11.61(2.54)	3.87(0.85)
Approaches to learning	3	3	15	13.68(2.53)	4.56(0.84)
Social emotional competence	4	4	20	18.7(2.8)	4.68(0.7)
Self-regulatory competence	4	4	20	18.45(2.96)	4.61(0.74)
Total	14	14	70	62.44(9.32)	4.46(0.67)

3.2 Parents' school readiness beliefs

The descriptive analysis of parents' school readiness beliefs showed that parents scored high concerning the importance of their child's competence across four domains of school readiness. In general, parents rated 4.51 mean score concerning school readiness beliefs as a whole. Across the four domains, parents rated the importance of academic competence as lower than other domains, with mean score of 4.27. While the self-regulatory competence i\was considered as the most important in comparison with other domains, with mean score of 4.60. Table 4.21 shows the detailed descriptive statistics for parents' school readiness beliefs.

Table 4.21 Descriptive statistics for parents' school readiness beliefs

Domain	Number of items	Min	Max	Factor sum score	Item average score

Academic competence	3	3	15	12.80(2.50)	4.27(0.83)
Approaches to learning	3	3	15	13.55(2.37)	4.52(0.79)
Social emotional competence	4	4	20	18.33(2.89)	4.58(0.72)
Self-regulatory competence	4	4	20	18.41(2.92)	4.60(0.73)
Total	14	14	70	63.09(9.63)	4.51(0.69)

3.3 Primary school teachers' school readiness beliefs

The descriptive analysis of primary school teachers' school readiness beliefs showed that they scored high concerning the importance of their child's competence across four domains of school readiness. In general, Primary school teachers score 4.3 on average concerning school readiness beliefs as a whole. Across the four domains, primary school teachers rated the importance of academic competence as lower than other domains, with mean score of 3.84. While the self-regulatory competence was considered as the most important in comparison with other domains, with mean score of 4.48. Table 4.22 shows the detailed descriptive statistics for primary school teachers' school readiness beliefs.

Table 4.22 Descriptive statistics for primary school teachers' school readiness beliefs

Domain	Number of items	Min	Max	Factor sum score	Item average score
Academic competence	3	3	15	11.51(3.07)	3.84(1.02)
Approaches to learning	3	3	15	13.24(3.34)	4.41(1.11)
Social emotional competence	4	4	20	17.56(3.58)	4.39(0.9)
Self-regulatory competence	4	4	20	17.93(3.73)	4.48(0.93)
Total	14	14	70	60.25(12.04)	4.3(0.86)

3.4 Comparison of school readiness beliefs between kindergarten teachers and parents

latent means differences of four domains of school readiness beliefs between kindergarten teachers and parents were compared, given the result of multi-group CFA shows the measurement invariance of school readiness belief scale between the two groups. The raw scores were multiplied by the loadings of each indicator to generate the predicted scores for calculating the latent means and standard deviations. The t tests were conducted for the latent means comparisons. As Table 4.23 shows, parents and kindergarten teachers' beliefs differ significantly concerning with the importance of social-emotional competence of child for school readiness($p<0.01$), and the effect size is small (Cohen's $d=0.19$).

Table 4.23 Comparison of latent means of school readiness beliefs between kindergarten teachers and parents

	Parents	Kindergarten teachers			
	M(SD)	M(SD)	t	p	Cohen's d
Academic competence	12.24(2.01)	12.50(2.01)	-1.84	0.065	-0.13
Approaches to learning	13.60(2.17)	13.65(2.40)	0.32	0.75	0.02
Social-emotional competence	18.26(2.76)	18.68(2.66)	2.70	0.007**	0.19
Self-regulatory competence	18.32(2.85)	18.41(2.84)	0.63	0.53	0.04

** $p<0.01$

3.5 Comparison of school readiness beliefs between kindergarten and primary school teachers

As the multi-group confirmatory factor analysis for the measurement invariance of the school readiness belief scale between kindergarten and primary school teachers shows the

inequivalence regarding measurement, which could be resulted from the low sample size of primary school teachers, thus the comparison of school readiness beliefs between kindergarten and primary school teachers is done only with the items in the scale. As shown in table 4.24, kindergarten teachers and primary school teachers held different beliefs on the importance of all four items of social-emotional competence. Kindergarten teachers scored higher than primary school teachers for the four items, with effect sizes ranging from 0.26 to 0.40, indicating small effects. Besides, for one item in academic competence domain, *counts by himself/herself*, kindergarten teachers rated significantly higher than primary school teachers, with a small effect size of 0.26. For the rest of items, no significant differences were found between kindergarten teachers and primary school teachers.

Table 4.24 Comparison of items of school readiness beliefs between kindergarten teachers and primary school teachers

Domains	Items	Kindergarten teachers	Primary school teachers			
		M(SD)	M(SD)	t	p	Cohen's d
Academic competence						
Item 12	Writes words other than his/her name.	3.83(1.07)	3.80(1.17)	0.20	0.84	0.02
Item 13	Knows most letters of alphabets/many characters.	3.36 (1.12)	3.54(1.19)	-1.51	0.13	-0.16
Item 15	Counts by himself/herself.	4.42(0.86)	4.17(1.05)	2.43	0.02*	0.26
Approaches to learning						
Item 3	Is self-confident.	4.38(0.90)	4.29(1.17)	0.83	0.41	0.09

Item 4	Has patience.	4.69(0.88)	4.53(1.16)	1.46	0.14	0.16
Item 2	Is curious, asks lots of questions about how and why.	4.62(0.90)	4.42(1.16)	1.81	0.07	0.20
Self-regulatory competence						
Item 19	Is not disruptive of the class.	4.50(0.82)	4.44(0.98)	0.57	0.57	0.06
Item 18	Sits still and pays attention to teacher.	4.67(0.78)	4.49(0.97)	1.97	0.05	0.21
Item 20	Completes tasks on time.	4.65(0.77)	4.54(0.97)	1.18	0.24	0.13
Item 17	Follows directions.	4.64(0.79)	4.46(0.98)	1.92	0.06	0.21
Social-emotional competence						
Item 32	Takes turns and shares.	4.73(0.76)	4.50(1.05)	2.41	0.02*	0.26
Item 30	Communicates needs/wants verbally.	4.61(0.81)	4.28(0.93)	3.58	<0.001***	0.39
Item 26	Has good problem-solving skills with peer relations.	4.73(0.74)	4.47(1.00)	2.80	0.005**	0.30
Item 24	Shows respect for others.	4.64(0.74)	4.31(0.95)	3.70	<0.001***	0.40

4. COMPARISON OF PLAY BELIEFS BETWEEN KINDERGARTEN TEACHERS AND PRIMARY SCHOOL TEACHERS

4.1 kindergarten teachers' play beliefs

As parental play belief scale consists of two distinct, negatively correlated constructs, play-support belief and academic focus belief, only the scores of the two subscales are reported in Table 4.25. In overall, parents valued play as a learning opportunity more than the academic focus way, with the mean score of play support subscale(M=4.45) much higher than that of academic focus subscale(M=2.49).

Table 4.25 Descriptive statistics for kindergarten teachers' play belief

Domains	Number of items	Min	Max	Factor sum score	Item average score
Play-support	7	7	35	31.14(4.46)	4.45(0.64)
Academic-focus	4	4	20	9.98(5.19)	2.49(1.3)

4.2 Primary school teachers' play beliefs

In overall, primary school teachers valued play as a learning opportunity more than the academic focus way, with the mean score of play support subscale(M=4.31) much higher than that of academic focus subscale(M=2.69). Table 4.26 displays the detailed descriptive statistics for primary school teachers' play beliefs.

Table 4.26 Descriptive statistics for primary school teachers' play belief

Domains	Number of items	Min	Max	Factor sum score	Item average score
Play-support	7	7	35	30.17(5.47)	4.31(0.78)
Academic-focus	4	4	20	10.7(4.67)	2.69(1.17)

4.3 Comparison of play beliefs between kindergarten and primary school teachers

Given the measurement invariance of play beliefs scale for kindergarten and primary school teachers (see Chapter 4, Section 1.5.2), latent means differences of two domains of play beliefs were compared between two groups of teachers. The raw scores were multiplied by the loadings of each indicator to generate the predicted scores for calculating the latent means and standard deviations. The t tests were conducted for the latent means comparisons. As table 4.27 shows, kindergarten teachers are significantly more play support than primary school teachers($p<0.01$), and the effect size is small (Cohen's d=0.27).

Table 4.27 Comparison of latent means of play beliefs between kindergarten teachers and primary school teachers

Domain	Kindergarten teacher M(SD)	Primary school teacher M(SD)	t	P	Cohen's d
Play Support	22.59 (2.82)	21.74(3.64)	2.5	0.01**	0.27
Academic Focus	10.03(4.72)	10.67(4.26)	-1.3	0.19	-0.14

5. LATENT PROFILE ANALYSIS BASED ON PARENTAL SCHOOL READINESS BELIEFS AND THE ASSOCIATION OF PROFILE MEMBERSHIPS WITH SES

5.1 Latent profiles of parents' school readiness beliefs

A person-centered approach was adopted in current study for delineating parents' school readiness beliefs. Latent profile analysis was conducted to identify latent profiles of parents' school readiness beliefs based on the 14 items measuring the construct. Latent profile analysis is a model-based approach for revealing subgroups in the population of parents with homogeneous school readiness beliefs in present study. I fit the latent profile analysis models

assuming that covariance matrices across classes are independent from each other, thus the covariances are restricted to zero across classes. Table 4.28 shows the comparisons of fit indices of 2 to 4-profile solutions. I mainly rely on the BIC for model comparison and choosing the appropriate model, given the relatively good performance of this index, meanwhile, entropy is also considered as an important index. As table 4.28 shows, the AIC, BIC and aBIC are the lowest with three-profile solution in comparison with other solutions. Meanwhile, the entropy of three-profile solution is 0.99, which shows accuracy in assigning parents to profiles and the three profiles are well separated. Both the BLRT (2*ΔLL=20748.06, p<0.0001) and the LMR-LRT (2*ΔLL =19816.83, p<0.0001) supported that three-profile solution is better than two-profile solution. Likewise, four-profile solution improves in comparison with three-profile solution. However, by taking into consideration the above indices in overall, especially the BIC and entropy, the three-profile solution is the optimal model.

Table 4.28 Fit indices for latent profile analysis of parents' school readiness beliefs

Model and profile	Count	Proportion	Entropy	AIC	BIC	aBIC	LMRLRT(p)	BLRT(P)
Two Profile	502 522	49% 51%	0.99	20804.88	21028.99	20889.22	19816.83 (<.0001)	20748.06 (<.0001)
Three Profile	885 31 288	73.5% 2.6% 23.9%	0.99	6932.27	7237.87	7047.29	13280.53 (<.0001)	13904.61 (<.0001)
Four Profile	31	2.5%	0.98	15743.13	15356.03	15844.13	21688.22 (<.0001)	22707.4

		(<0.001)
399	39.1%	
276	27.2%	
317	31.2%	

Note: AIC = Akaike Information Criteria. BIC = Bayesian Information Criteria. aBIC = sample size adjusted BIC.

Table 4.29 shows the means of the school readiness beliefs for three latent profiles. As displayed in Table 4.29, the most prevalent profile (profile 1) characterized with placing very high overall emphasis on child's competence for school readiness and slightly less importance on academic skills in comparison with other domains, including 74% of parents. The profile 2 is the second largest group, with 23% of parents belonging to this class, which features moderate overall emphasis on school readiness and placing less importance on academic skills. The fewest proportion is profile 3, with 3% members, of which the main characteristics are very low overall emphasis on school readiness and attaching more importance to academic skills. I labeled the three profiles based on the above features, as very strong overall emphasis and slightly less academic-oriented, moderate overall emphasis and less academic-oriented, and no emphasis and more academic-oriented, respectively, corresponding to profile 1, profile 2 and profile 3. Figure 4.1 shows the visual depiction of the three latent profiles of parents' school readiness beliefs.

As Figure 4.1 shows, the three profiles distinct from each other in terms of both the level and shape differences. Meanwhile, the two most prevalent profiles display some common shapes. The profile 1 and profile 2 both rated knowing characters and writing as the least important. In comparison with other indicators, profile 1 ranked being curious, self-confident, patient, and taking turns and sharing as the most important, while profile 2 deemed peer relations, communicating needs and wants, as well as following directions as the most important competences for school readiness. In contrast, profile 3 rated writing, knowing characters and counting as the most important in relation to other indicators, and they rated being patient, curious, and taking turns and sharing as the least important.

Table 4.29 Means for three latent profiles of school readiness beliefs

Variables		Overall sample M(SE)	Profile1: Very strong overall emphasis, slightly less academic-oriented (74%) M(SE)	Profile2: Moderate overall emphasis, less academic-oriented (23%) M(SE)	Profile3: No emphasis, more academic-oriented (3%) M(SE)
Academic competence					
Item 12	Writes words other than his/her name.	4.21(0.03)	4.49(0.03)	3.69(0.05)	1.26 (0.14)
Item 13	Knows most letters of alphabets/many characters.	4.10(0.03)	4.37(0.03)	3.54(0.05)	1.52(0.15)
Item 15	Counts by himself/herself.	4.49(0.02)	4.79(0.02)	3.91(0.03)	1.13(0.10)
Social-emotional competence					
Item 24	Shows respect for others.	4.29(0.02)	4.55(0.02)	3.83(0.04)	1.29(0.13)
Item 26	Has good problem-solving skills	4.64(0.02)	4.87(0.02)	4.33(0.03)	1.07(0.10)

	with peer relations.				
Item 30	Communicates needs/wants verbally.	4.62(0.02)	4.88(0.02)	4.22(0.03)	1.03(0.10)
Item 32	Takes turns and shares.	4.70(0.02)	4.96(0.01)	4.28(0.02)	1.00(0.06)
Self-regulatory competence					
Item 17	Follows directions.	4.49(0.02)	4.79(0.02)	3.94(0.03)	1.07(0.07)
Item 18	Sits still and pays attention to teacher.	4.64(0.02)	4.91(0.01)	4.18(0.02)	1.03(0.08)
Item 19	Is not disruptive of the class.	4.50(0.02)	4.82 (0.02)	3.91(0.03)	1.03(0.09)
Item 20	Completes tasks on time.	4.45(0.02)	4.76(0.02)	3.84(0.03)	1.16(0.06)
Approaches to learning					
Item 2	Is curious, asks lots of questions about how and why.	4.65(0.03)	4.95(0.01)	4.11(0.02)	1.03(0.06)
Item 3	Is self-confident.	4.65(0.02)	4.95(0.01)	4.12(0.02)	1.13(0.06)

Item 4	Has patience.	4.66(0.02)	4.96(0.01)	4.12(0.02)	1.03(0.06)

Bronferroni correction was applied when interpreting the results of Wald tests. By comparing each indicator for profile 3 times (1v.2, 1v.3, 2v.3). Thus an alpha of (0.05/3=0.02) for the determination of significance of mean differences. All mean differences are significant at the level of $p<0.02$.

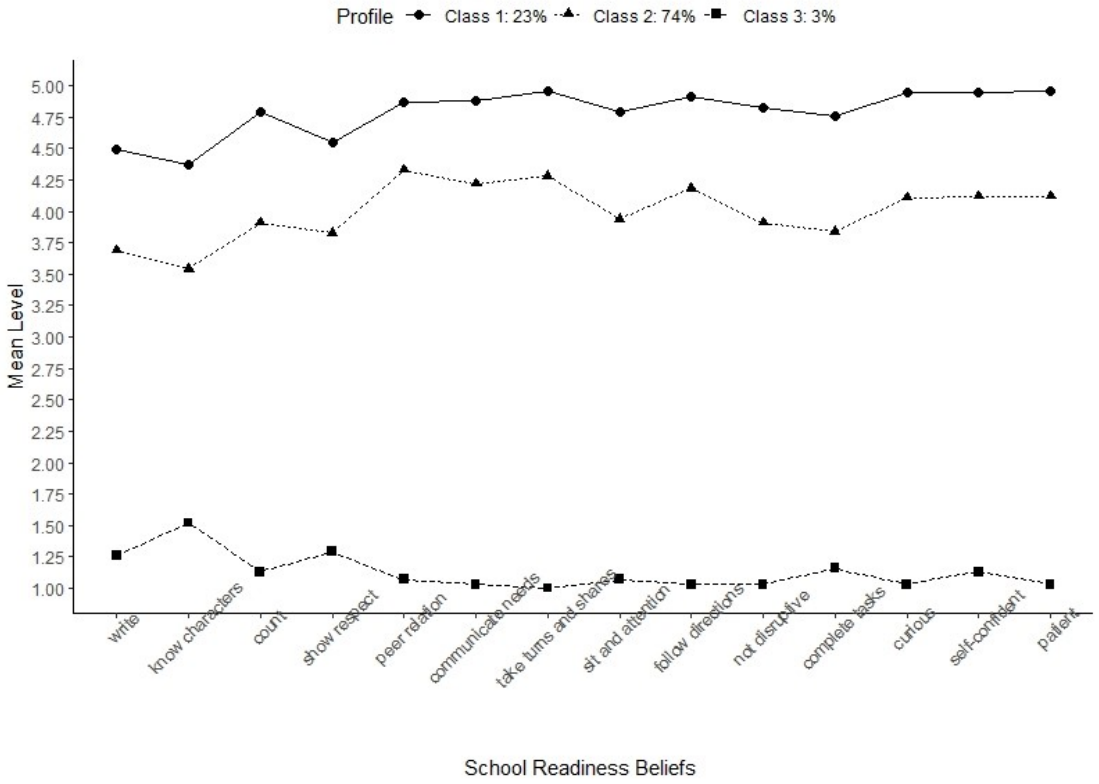

Figure 4.1 Latent profiles of parents' school readiness beliefs

5.2 Factors related to latent profiles of parents' school readiness beliefs

Three-step approach (Asparouhov & Muthén, 2014; Vermunt, 2010) was used in current study for latent profile analysis with covariates. After the first step identifying latent profiles without covariates, to examine the effects of covariates on profile membership, including age of child, birth order of child, SES and gender of the child, the second step of analysis was to derive the error terms for individuals' assignment to a most likely latent profile. And the third step was to treat the latent profile membership as an indicator variable and examine the effects of covariates on it. The relationship between family SES, gender, age, and birth order of child and profile membership is presented in Table 4.30.

Table 4.30 Effects of covariates on profile membership

Profile	Covariate	Coefficient	SE	p-Value	Odds Ratio	95% confidence intervals	
Profile 3 vs profile 1	SES	-0.001	0.034	0.973	0.999	0.934	1.068
	Male	-0.004	0.367	0.991	0.996	0.485	2.043
	Age of child	-0.020	0.028	0.470	0.980	0.929	1.035
	Only child	0.178	0.435	0.682	1.195	0.510	2.804
	First but not only child	-0.370	0.569	0.515	0.690	0.226	2.105
	Age of Respondent	-0.022	0.039	0.569	0.978	0.907	1.055
Profile 2 vs profile 1	SES	-0.032	0.013	0.014*	1.032	1.006	1.058
	Male	0.106	0.168	0.759	1.111	0.844	1.463
	Age of child	-0.020	0.011	0.083	0.980	0.959	1.003
	Only child	-0.052	0.168	0.759	0.950	0.684	1.320

First but not only child	0.163	0.201	0.416	1.177	0.795	1.744
Age of Respondent	-0.013	0.013	0.318	0.987	0.963	1.012

Note: Reference group= Very High school readiness importance, lowest authoritarian and high authoritative parenting profile (Profile 1). A Bonferroni (1936) correction was applied for interpreting the significance of covariates. Profile 2, 3 are compared to profile 1 (the reference), leading to 2 times of comparison. Thus, I use an alpha of (.025 (0.05/2 =0.025) when determining the significance of covariates. * Denotes that significance level <.025.

As table 4.30 shows, the very strong overall emphasis and slightly less academic-oriented group (Profile 1) is treated as the reference group as it is the largest group. As two comparisons were conducted, we used the Bonferroni correction to interpret the significance of covariates (Bonferroni, 1936), with an alpha of 0.025 (0.05/2=0.025). Odds Ratios indicate the probability of the change of covariates would be associated with the membership of a specific profile, in comparison with the referent group. As Table 4.30 reveals, parents with higher SES are more likely to hold school readiness belief with very strong overall emphasis and slightly less academic-oriented (Profile 1) than to belong to Profile 2 (moderate overall emphasis and less academic-oriented). Decrease of one unit of SES is associated with 0.03 times of increase of the likelihood of being in the profile 2, in comparison with profile 1.

6. LATENT PROFILE ANALYSIS BASED ON PARENTAL SCHOOL READINESS BELIEFS AND PARENTING STYLE AND ASSOCIATED FACTORS

6.1 Descriptive result for parenting style

As parental school readiness beliefs are described before in Section 3.2, here I only present the descriptive results of parenting style. In general, parents scored low in authoritarian parenting(M=2.12) and scored high in authoritative parenting(M=4.11). Among the dimensions of authoritarian parenting, parents rated their own parenting practices in punitive dimension the

lowest(M=1.69) and the verbal hostility highest(M=2.41). Regarding the authoritative parenting, parents reported the lowest level in the autonomy domain(M=3.97) and the highest level in the domain of connection with their child. Table 4.31 and Table 4.32 present detailed descriptive statistics for authoritarian and authoritative parenting.

Table 4.31 Descriptive statistics for Authoritarian parenting subscale

Domains	Number of items	Min	Max	Factor sum score	Item average score
Physical Coercion	3	3	15	6.91(2.38)	2.31(0.79)
Verbal hostility	4	4	20	9.64(2.89)	2.41(0.72)
Punitive	4	4	20	6.77(3.03)	1.69(0.76)
Total	11	11	55	23.32(7.30)	2.12(0.66)

Table 4.32 Descriptive statistics for Authoritative parenting subscale

Domains	Number of items	Min	Max	Factor sum score	Item average score
Connection with child	5	5	25	21.79(2.99)	4.36(0.60)
Regulation	5	5	25	20.08(3.58)	4.02(0.72)
Autonomy	5	5	25	19.83(3.54)	3.97(0.71)
Total	15	15	75	61.7(9.19)	4.11(0.61)

6.2 Parental perception on roles of family and schools in school readiness

Parents held positive attitude toward the roles of family and schools in getting children ready for school in general, with an average score of 4.01 for the whole scale. However, parents attached greater importance to family role in child's school readiness than school role. The average score of family role in child's school readiness was 4.53, which was much higher than the mean score of school role in school readiness, 3.24. Table 4.33 shows the detailed

descriptive results for parental perceptions on importance that parents and school shall play a role in preparing child for school.

Table 4.33 Descriptive statistics for Roles in school readiness

Domains	Number of items	Min	Max	Factor sum score	Item average score
Role of family	3	3	15	13.58(1.88)	4.53(0.63)
Role of school	2	2	10	6.47(2.34)	3.24(1.17)
Total	5	5	25	20.05(3.30)	4.01(0.66)

6.3 Latent profiles of parents' school-readiness beliefs and parenting style

Latent profile analysis was conducted to identify latent profiles based on parents' school-readiness beliefs and parenting style. Table 4.34 shows the comparisons of fit indices for 2- to 4-profile solutions. As Table 4.34 shows, the AIC, BIC and aBIC are the lowest, with three-profile solutions in comparison with other solutions, indicating an optimal model fit, as smaller values indicate a better model fit regarding these indices (Geiser, 2013). Meanwhile, the entropy of the three-profile solution is 0.94, which shows accuracy in assigning parents to profiles and good separation between the three profiles (Geiser, 2013). Regarding the profile size, the additional profile in the three-profile solution contains more than 1% of the total sample size and more than 25 cases, which is acceptable (Lubke and Neale, 2006). Both the BLRT and the LMRLRT favor a three-profile solution over a two-profile solution ($2*\Delta LL = 2538.89$, $p<0.0001$), and a four-profile solution would further improve on the three-profile solution. However, when taking into consideration the above indices and the conceptual interpretability of the solution, we decided that the three-profile solution is the optimal model.

Table 4.34 Fit indices for latent profile analysis based on parents' school-readiness beliefs and parenting style

Model and profile	Count	Proportion	Entropy	AIC	BIC	aBIC	LMRLRT (p)	BLRT(p)

Two-profile	879	0.73	0.89	12021.84	12123.71	12060.18	3633.76 (<.0001)	3804.52 (<.0001)
	325	0.27						
Three-profile			0.94	9498.96	9641.57	9552.63	2424.93 (<.0001)	2538.89 (<.0001)
	861	0.71						
	312	0.26						
	31	0.03						
Four-profile			0.95	9514.96	9698.32	9583.97	835.06 (<0.001)	874.30 (<.0001)
	399	0.39						
	317	0.31						
	276	0.27						
	31	0.03						

Note: AIC = Akaike Information Criteria. BIC = Bayesian Information Criteria. aBIC = sample size-adjusted BIC. BLRT = Bootstrapped Likelihood Ratio Test. LMR-LRT = Lo-Mendell-Rubin Likelihood Ratio Test.

Table 4.35 shows the mean values of the school-readiness beliefs and parenting style for the three latent profiles. We named the three profiles based on the means of school-readiness beliefs and parenting style indicators to highlight the characteristics of each underlying subgroup of parents. As displayed in Table 4.35, Profile 1 is characterized as *Supportive parenting with a very strong emphasis on school readiness* and constitutes 71% of parents. Profile 2 features *Partially supportive parenting with a reflection of school readiness* and is less prevalent in comparison with Profile 1, with 26% parents in the population belonging to this class. Profile 1 and Profile 2 feature a somewhat lower emphasis on the importance of concrete academic skills compared to other domains. The smallest proportion (3%) of parents belong to Profile 3, which is characterized as *Weakly supportive parenting with no emphasis on school readiness*. Notably, academic skills are rated slightly higher relative to the other domains in Profile 3.

For the overall sample, as Table 4.35 shows, the mean scores of school-readiness beliefs and parenting style show a high level of overall emphasis on the school-readiness competence of children, a low frequency of authoritarian parenting, and a high frequency of authoritative parenting. However, the three profiles evince obvious heterogeneity regarding school-readiness beliefs, and different levels of overall expectations across all four domains and different levels of authoritative parenting are displayed across the three groups. Despite the distinct features, the two most prevalent profiles display some common patterns. Profile 1 and Profile 2 both rated academic competence as the least important. Profile 1 ranked social-emotional competence as the most important, while Profile 2 deemed self-regulatory skills the most important. Profile 3 rated social-emotional competence as the most important. Both Profile 1 and Profile 2 rated the domains of self-regulatory and approaches to learning as important. Figure 4.2 shows the visual depiction of the latent profiles of parents' school-readiness beliefs and parenting style. Common to all profiles is a low value of authoritarian parenting, while the level of authoritative parenting is the highest for Profile 1 and lowest for Profile 3. For Profile 1, parents strongly emphasize the importance of their children's school-readiness skills with mean scores of over 4.5 across all domains and display a low value of authoritarian parenting contrasted with the highest score for authoritative parenting (mean score of 4.26), indicating they most frequently engage in democratic parenting, encouraging autonomy for their children. For Profile 2, parents still hold high expectations but place less emphasis on the importance of children's school-readiness skills compared to Profile 1, with mean scores ranging from 3.76 to 4.17 across all domains. Meanwhile, they show a low value of authoritarian parenting and moderate authoritative parenting (mean score of 3.78), indicating that they exhibit a moderate

frequency of authoritative parenting. Profile 3, with the smallest population group, holds very low expectations and places almost no emphasis on the school-readiness competence of their child, with mean scores less than 1.50 across the four domains. They parenting style scores low for authoritarian but also the lowest, relatively, for authoritative parenting (mean score of 3.44), suggesting the lowest frequency of authoritative parenting practice among the three profiles.

Table 4.35 Mean values for the three latent profiles based on parents' school-readiness beliefs and parenting style

Variables	Overall sample M(SE)	Profile1: Supportive parenting with a very strong emphasis on school readiness (71%) M(SE)	Profile2: Partially supportive parenting with a reflection of school readiness (26%) M(SE)	Profile3: Weakly supportive parenting with no emphasis on school readiness (3%) M(SE)
School-readiness beliefs				
Academic	4.27(0.02)	4.56(0.02)	3.76(0.03)	1.30(0.10)
Approaches to learning	4.52(0.02)	4.78(0.02)	4.15(0.03)	1.13(0.09)
Social emotional	4.58(0.02)	4.91(0.01)	4.05(0.02)	1.03(0.04)
Self-regulatory	4.60(0.02)	4.89(0.01)	4.17(0.02)	1.09(0.06)
Parenting style				

Authoritarian parenting	2.12(0.02)	2.12(0.02)	2.10(0.04)	2.19(0.12)
Authoritative parenting	4.11(0.02)	4.26(0.02)	3.78(0.03)	3.44(0.10)

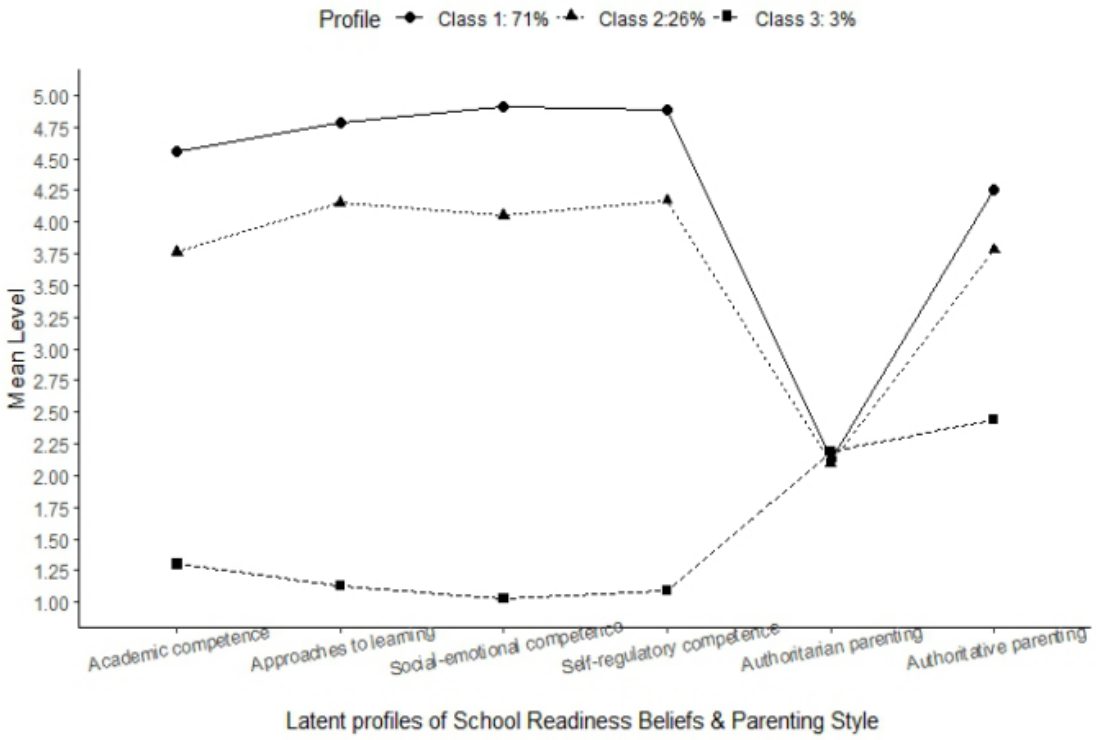

Figure 4.2 Latent profiles of parents' school-readiness beliefs and parenting style

6.4 Factors related to the latent profiles of parents' school-readiness beliefs and parenting style

A three-step approach (Asparouhov and Muthén, 2014; Vermunt, 2010) was used in the present study to conduct a latent profile analysis with covariates. The first step identified the latent profiles without covariates to examine the effects of covariates on profile membership, including age of child, age of respondent, birth order of child, SES and gender of the child, The second step of analysis was to derive the error terms for individuals' assignment to their most likely latent profile. And the third step was to treat the latent profile membership as an indicator variable and examine the effects of covariates on it. The relationship between profile membership and family SES, gender, age and birth order of child is presented in Table 4.36.

Table 4.36 Effects of covariates on profile membership based on parents' school-readiness beliefs and parenting style

Profile	Covariate	Coefficient	SE	p-Value	Odds ratio	95% confidence intervals	
	SES	-0.011	0.083	0.894	0.989	0.840	1.164
Profile 3 vs Profile 1	Male	0.023	0.367	0.949	1.024	0.499	2.102
	Age of child	-0.022	0.028	0.423	0.978	0.927	1.033
	Only child	0.170	0.435	0.696	1.185	0.505	2.782
	First but not only child	-0.404	0.569	0.478	0.668	0.219	2.037
	Age of respondent	-0.018	0.039	0.641	0.982	0.910	1.059
	SES	-0.092	0.031	**0.003***	0.912	0.858	0.970
Profile 2 vs Profile 1	Male	0.008	0.140	0.955	1.008	0.725	1.395
	Age of child	0.009	0.011	0.406	1.009	0.987	1.032
	Only child	0.005	0.167	0.975	1.005	0.725	1.395
	First but not only child	-0.300	0.203	0.139	0.740	0.497	1.103

Age of respondent	0.024	0.012	0.056	1.024	0.999	1.049

Note: Reference group= *Supportive parenting with a very strong emphasis on school readiness* profile (Profile 1). A Bonferroni (1936) correction was applied to interpret the significance of covariates. Profiles 2 and 3 are compared to Profile 1 (the reference), leading to 2 comparisons. Thus we use an alpha of (.025 (0.05/2 =0.025) when determining the significance of covariates. * Denotes a significance level <0.025.

As Table 4.36 shows, Profile 1 (*Supportive parenting with a very strong emphasis on school readiness*) is treated as the reference group. The odds ratios indicate the probability of the change of covariates that would be associated with the membership of a specific profile, in comparison with the reference group. The effects of covariates included in the model suggest the relative probability of being a member of Profiles 3 and 2, compared with Profile 1. As two comparisons were conducted, we used the Bonferroni correction to interpret the significance of covariates (Bonferroni, 1936), with an alpha of 0.025 (0.05/2=0.025). As Table 4.36 reveals, parents with lower SES are more likely to be in Profile 2 (*Partially supportive parenting with a reflection of school readiness*) than Profile 1 (*Supportive parenting with a very strong emphasis on school readiness*). A decrease of one unit of SES is associated with 0.09 times of increase of the likelihood of being in Profile 2, in comparison with Profile 1. However, none of the demographic characteristics are associated with profile membership.

6.5 Latent profiles of parents' school readiness beliefs and attitudes regarding roles in school readiness

Table 4.37 shows the comparisons of fit indices of 2 to 4-profile solutions. The AIC, BIC and aBIC are the lowest with four-profile solution in comparison with other solutions. Meanwhile, the entropy of three-profile solution is 0.91, which shows accuracy in assigning parents to profiles. Both the BLRT and the LMR-LRT supported that three-profile solution is better than two-profile solution (2*ΔLL =2750.71, p<0.0001) and four-profile solution improves in comparison with three-profile solution. However, the four-profile solution includes one profile with individuals less than 1% of the sample size, which could lead to the instability of the model. Based on the interpretable theoretical meaning of the three-profile solution and its good model fit indices (Entropy=0.94 and BIC improves significantly than profile 2), I choose the three-profile solution as the optimal model.

Table 4.37 Fit indices for latent profile analysis based on parents' school readiness beliefs and attitudes toward role in school readiness

Model and profile	Count	Proportion	Entropy	AIC	BIC	aBIC	LMRLRT (p)	BLRT(P)
Two Profile		73%					3820.24 (<.0001)	3999.76 (<.0001)
	879		0.89	13235.98	13274.32	13374.22		
	325	27%						
Three Profile							2627.25 (<.0001)	2750.71 (<.0001)
			0.94	10501.27	10554.95	10592.63		
	854	70.9%						
	319	26.5%						
	31	2.6%						
Four Profile							908.40 (<0.001)	951.08 (<.0001)
			0.91	9566.19	9635.20	9787.52		
	31	2.6%						
	313	26%						
	850	71%						
	10	0.8%						

Note: AIC = Akaike Information Criteria. BIC = Bayesian Information Criteria. aBIC = sample size adjusted BIC.

Table 4.38 shows the means of the school readiness beliefs and attitudes regarding roles in school readiness for three latent profiles. The major differences lie in the level differences of parents' school readiness beliefs and their emphasis on the role of family playing in children's school readiness. The three profiles share common pattern that they emphasize the role of family in school readiness much more than the role of school. As displayed in table 4.38, the most prevalent profile (profile 1) characterized with the very high overall emphasis on school readiness, high emphasis on family role and moderate emphasis on school role, including 71% of parents. The profile 2 is much less prevalent than profile 1, with 26% parents belonging to this class, which features moderate overall emphasis on school readiness, high emphasis on family role and low emphasis on school role. Besides, Profile 2 features relatively low emphasis on the importance of concrete academic skills than other domains. The fewest proportion is profile 3, with 3% members, of which the main characteristics are no emphasis on school readiness, moderate emphasis on family role and low emphasis on school role. Meanwhile, another feature of profile 3 is the slightly more academic-oriented. And for the profile 3, even though the emphasis on child's competence for school readiness is very low, parents stress the family role in school readiness in a moderate level. Figure 4.3 shows the visual depiction of latent profiles of parents' school readiness beliefs and attitudes regarding roles in school readiness.

Table 4.38 Means for three latent profiles based on school readiness beliefs and attitudes regarding roles in school readiness

Variables	Overall sample M(SE)	Profile1: Very high overall emphasis on school readiness, high family role and moderate school role (71%)	Profile2: Moderate overall emphasis on school readiness, moderate family role and low school role	Profile3: Low school readiness expectation, low family role and low school role (3%) M(SE)

		M(SE)	(26%) M(SE)	
School readiness beliefs				
Academic	4.27(0.02)	4.57(0.02)	3.74(0.03)	1.30(0.10)
Approaches to learning	4.52(0.02)	4.78(0.02)	4.16(0.03)	1.13(0.09)
Social emotional	4.58(0.02)	4.90(0.01)	4.07(0.02)	1.03(0.04)
Self-regulatory	4.60(0.02)	4.89(0.01)	4.17(0.02)	1.09(0.06)
Role				
Family role	4.53(0.02)	4.68(0.02)	4.19(0.03)	3.76(0.10)
School role	3.24(0.03)	3.30(0.04)	3.08(0.07)	2.97 (0.21)

Bronferroni correction was applied when interpreting the results of Wald tests. By comparing each indicator for profile 3 times (1v.2, 1v.3, 2v.3). Thus an alpha of (0.05/3=0.02) for the determination of significance of mean differences. All mean differences are significant at the level of $p<0.02$.

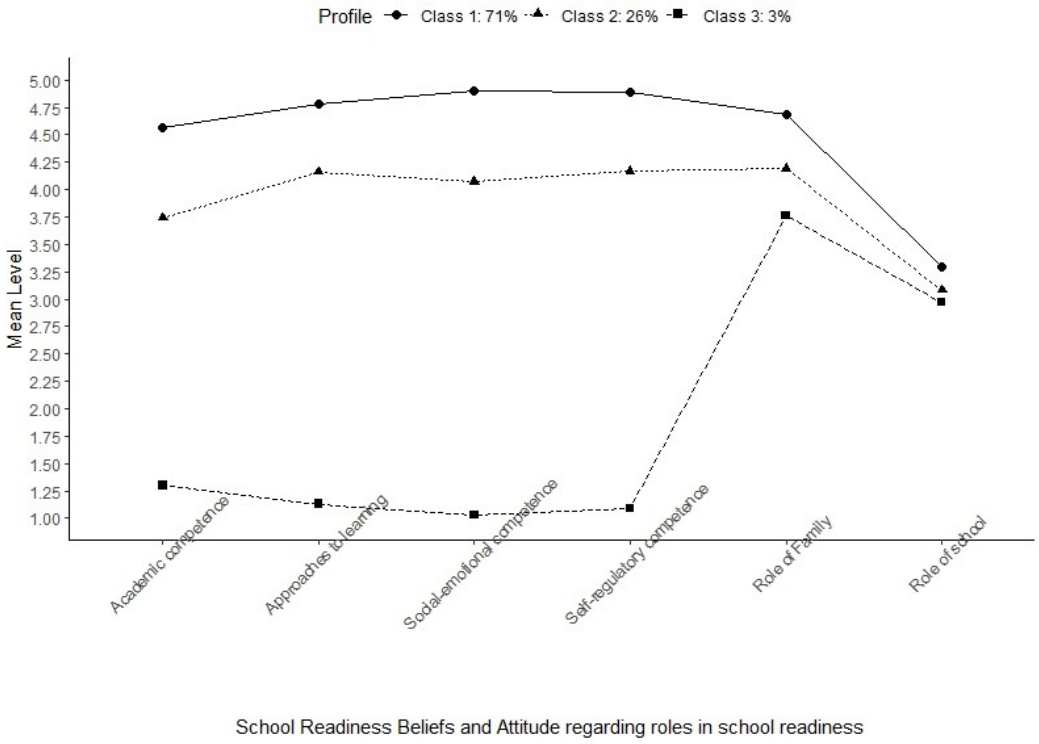

Figure 4.3 Latent profiles of parents' school readiness beliefs and attitude regarding roles in school readiness

6.6 Factors related to latent profiles of parents' school readiness beliefs and attitudes regarding roles in school readiness

As Table 4.39 shows, the profile of *Very high overall emphasis on school readiness, high family role and moderate school role* (Profile 1) is treated as the reference group. Odds Ratios indicate the probability of the change of covariates would be associated with the membership of a specific profile, in comparison with the referent group. As Table 4.39 reveals, in comparison with Profile 1 *Very high overall emphasis on school readiness, high family role and moderate school role*, parents with lower SES are more likely to place *high overall emphasis on school readiness, moderate family role and low school role* (Profile 2). Decrease of one unit of SES is associated with 0.038 times of increase of the likelihood of being in the profile 2, in comparison with profile 1.

Age of respondents is also significantly associated with probability of being in profile 2. Respondents with younger age are more likely to belong to Profile 2 than profile 1, that is, more likely to hold a belief with *high overall emphasis on school readiness, moderate family role*

and low school role. Decrease of 0.03 years of age is associated with 0.03 times of increase of the likelihood of being in the profile 2, in comparison with profile 1.

Table 4.39 Effects of covariates on profile membership

Profile	Covariate	Coefficient	SE	p-Value	Odds Ratio	95% confidence intervals	
	SES	-0.033	0.035	0.343	1.034	0.965	1.108
	Only child	0.151	0.450	0.738	1.163	0.482	2.807
	First born but not only child	-0.097	0.588	0.868	0.907	0.287	2.872
Profile 3 vs profile 1	Male	-0.035	0.380	0.943	0.966	0.459	2.033
	Age of child	-0.035	0.029	0.228	0.966	0.913	1.022
	Age of respondent	-0.046	0.040	0.249	0.955	0.884	1.032
	SES	-0.037	0.013	0.004*	1.038	1.012	1.064
	Only child	-0.022	0.168	0.895	0.978	0.704	1.359
	First born but	0.306	0.205	0.136	1.358	0.908	2.032

	not only child						
Profile 2 vs profile 1	Male	-0.076	0.141	0.592	0.927	0.703	1.223
	Age of child	-0.014	0.011	0.238	0.987	0.9665	1.009
	Age of respondent	-0.029	0.012	0.020*	0.971	0.948	0.995

Note: Reference group= *high school readiness expectations, high family role and low school role* profile (Profile 1). A Bonferroni (1936) correction was applied for interpreting the significance of covariates. Profile 2, 3 are compared to profile 1 (the reference), leading to 2 times of comparison. Thus, I use an alpha of (0. 025 (0.05/2 =0.025) when determining the significance of covariates. * Denotes that significance level <.025.

To sum up, the results answer the research questions generally as follows. Kindergarten teachers and parents hold different school readiness beliefs in that kindergarten teachers stress the social-emotional competence of children for school readiness significantly more than parents do, though the effect size is small. And due to the instrument limitation, I could not compare the school readiness beliefs of kindergarten teachers and primary school teachers at the latent level, however, kindergarten teachers rate the items about social-emotional competence for children's school readiness significantly higher than primary school teachers do, and such effect size is small. Besides, kindergarten teachers hold more play support beliefs than primary school teachers, and the two groups of teachers show no significant differences in terms of academic focus belief. The results also reveal that three subgroups of parents are identified based on their school readiness beliefs, the combination of school readiness beliefs and parenting styles, as well as the combination of school readiness beliefs and their attitudes regarding roles in school readiness. Higher SES is found to be related to the profile membership of parents placing very high emphasis on children's school readiness, displaying high parenting style or valuing highly the family role in school readiness.

CHAPTER 5

DISCUSSION

1. MISALIGNMENT OF SCHOOL READINESS BELIEFS BETWEEN PARENTS AND KINDERGARTEN TEACHERS

The result of latent means comparison based on the measurement invariance shows that kindergarten teachers attach greater importance to social-emotional competences than parents do. Other domains of school readiness beliefs show no significant differences between parents and kindergarten teachers. On the other hand, kindergarten teachers are also different from primary school teachers in terms of the items in the domain of social-emotional competence. Kindergarten teachers rate the importance of items in social-emotional domain higher than primary school teachers. Aside from that, kindergarten teachers rated a higher score on one item in academic competence domain than primary school teachers. Such result is partly consistent with the general hypothesis of this study that kindergarten teachers would stress social-emotional competence more than parents and primary school teachers. However, the hypothesis that parents and primary school teachers would be more academic-oriented than kindergarten teachers is rejected. Meanwhile, the hypothesis that kindergarten teachers would stress self-regulatory competence and approaches to learning more than parents is not supported as well.

Findings of the present study is consistent with previous research that parents and ECEC teachers share a lot in common regarding their school readiness beliefs (West et al., 1993). Besides, the results of the present study show that parents differ from kindergarten teachers in terms of their beliefs on children's social-emotional competence for school readiness with a small effect size, which is partially consistent with previous findings (Knudsen-Lindauer & Harris, 1989). Such result suggests that the overall continuity of school readiness beliefs between parents and kindergarten teachers is more evident than the discontinuities. As a stringent measurement invariance check was conducted in the present study, the inference of such continuity at the latent level could be made. The continuity of parents' and kindergarten teachers' expectation for social-emotional competence could be potentially related to children's social-emotional skills, which is important for child's social adjustment especially when they go to school with new teachers and classmates. So, the misalignment regarding children's

social-emotional competence could shed light on the parental intervention program for enhancing continuity between ECEC and family.

Inconsistent with prior findings, the present study finds no significant difference is found at the latent level, that is, we could not infer that parents and kindergarten teachers hold different beliefs about children's academic competence for school readiness. In contrast, previous studies revealed that parents center on the academic competence (Knudsen-Lindauer & Harris, 1989; West et al., 1993; Piotrkowski, 2000), like counting, reading and writing, more than ECEC teachers. Meanwhile, the result of this study does not support the previous findings that parents place greater emphasis on the behaviors such as compliance with class routines and teacher authorities higher than ECEC teachers (West et al., 1993; Piotrkowski, 2000). Such divergence could be derived from the sample differences. The above previous studies investigated the differences of beliefs between parents and ECEC teachers in the USA and were conducted about two decades before. Chinese parents and ECEC teachers in Chongqing of China, about two decades after the above studies carried out, could be different due to the specific context-related differences. It could be viewed as a reflection of strengthened shared understanding between parents and kindergarten teachers, as the continuity from ECEC to primary school is underscored by policies in recent years in China (Ministry of Education of China, 2021). Moreover, such inconsistency with prior studies could also be a result of methodological differences, as in the present study, multi-group CFA was conducted to allow for inference of mean differences of school readiness beliefs at the latent level. Given that previous studies did not ensure the comparability of measurement across groups, further comparisons of school readiness beliefs between parents and ECEC teachers based on the measurement invariance shall be conducted to examine the mean differences of school readiness beliefs.

2. MISALIGNMENT OF SCHOOL READINESS BELIEFS AND PLAY BELIEFS BETWEEN KINDERGARTEN TEACHERS AND PRIMARY SCHOOL TEACHERS

As the measurement invariance is not holding between kindergarten teachers and primary school teachers in the present study, the comparison of school readiness could not be achieved at a latent level. However, the comparison of items could still demonstrate differences of school readiness beliefs held by kindergarten teachers and first grade teachers. It is shown in the current study that kindergarten teachers place more emphasis on the items concerning with social-

emotional competence for school readiness than the first grade teachers, which is consistent with prior findings(An et al., 2018). Moreover, the results in the present study show that kindergarten teachers hold more play-support belief than first grade teachers. Though very few studies explored the differences in terms of play beliefs between kindergarten teachers and first grade teachers in a quantitative way, such results echo some qualitative findings that kindergarten teachers and primary school teachers understand play and pedagogy differently (Nicholson, 2018). Such difference could be a reflection of pedagogical understanding between the two groups of teachers and lead to discontinuities in pedagogical practices, thus, constitute a major discontinuity for children's transition to school.

Besides, the emphasis of kindergarten teachers on social-emotional competence could be related to the play-oriented pedagogy advocated in curriculum guideline of kindergarten in China. The play-oriented pedagogy emphasizes children learn and develop their skills through play in kindergartens and the value of play is found to be associated particularly with child's social-emotional development (Christmas, 2005). However, in primary school, pedagogy is more academic-focus than play-based. Thus, consistent with their philosophy of teaching and pedagogy, kindergarten teachers would attach higher value to the importance of social-emotional competence than primary school teachers. Given that alignment of kindergarten teachers' and primary school teachers' beliefs are associated with child's successful transition to school (Abry et al., 2015), it is necessary to bridge this gap through communication between two parties. Such differences also mirror the problems with communication between kindergarten teachers and primary school teachers for child's smooth transition to school.

3. PATTERNS OF PARENTS' SCHOOL READINESS BELIEFS

In the present study, 3 profiles of parents' school readiness beliefs are identified, which support the general hypotheses of the study. The three groups of parents holding different parents' school readiness beliefs are *very strong overall emphasis and slightly less academic-oriented, moderate overall emphasis and less academic-oriented, and no emphasis and more academic-oriented*. Such results are somewhat consistent with the mixed findings in previous research exploring Chinese parents' school readiness beliefs(Luo et al., 2013; Sawyer et al., 2022; Sy & Schulenberg, 2005; Zhang et al., 2008). Extant studies showed that Chinese parents held school readiness beliefs with high expectations on child's competence(Sy & Schulenberg, 2005), stress motivation, persistence(Luo et al., 2013), or stress approaches to learning more than academic skills(Zhang et al., 2008). Sawyer et al. (2022) found that Chinese immigrant parents attach

great importance to learning-related skills, including approaches to learning, self-regulatory skills than academic skills. In this study, the two groups of parents most prevalent in the population hold very high expectations for child's competences across 4 domains or hold overall high expectations and rate academic skills as less important than other domains. Such findings are consistent with the above prior research findings on Chinese parents. However, in the present study there also emerged one subgroup of parents with almost no emphasis on overall school readiness and more academic-oriented, de-emphasis in approaches to learning, which was seldomly reported in previous literature about Chinese parents' school readiness beliefs. Additionally, the profiles identified in current study are partially consistent with research findings on US parents(Kim et al.,2005 ; Slicker, 2021). Kim et al. (2005) identified three typologies of US parents' school readiness beliefs with cluster analysis, *'Typical',' High standards' and 'Low academic emphasis'* groups, which is somewhat different from the structure of school readiness beliefs found in current study. Such differences could be derived both from the different country origin of parents and structure of measurement. Measurement in current study covers four domains of school readiness beliefs, thus more detailed pattern could be delineated, in comparison with the measurement with only 7 items used in study of Kim et al. (2005). Slicker et al. (2021) adopted the latent profile analysis and revealed roughly two groups of US parents regarding their school readiness beliefs, the one with high expectation on child's competence and the other one with low expectation, which is somewhat similar results with present study. However, only used 6 items to measure school readiness beliefs and did not explore the characteristics of such beliefs based on multiple domains of school readiness belief.

Disparities of previous research findings from the results of current study could be derived from the differences in two-fold. Firstly, previous studies investigated Chinese immigrant parents living in USA (Luo et al., 2013; Sawyer et al., 2022; Sy & Schulenberg, 2005) or parents (Zhang et al., 2008). The socioeconomic status of parents in previous studies is relatively high. However, parents in current study cover a wider spectrum of socioeconomic status, thus yielding more diverse results. Secondly, person-centered approach focuses on identifying groups of people in a population based on certain variables. However, variable-centered approach aims to explore the distribution of certain variables. Given the result of this study that parents with low expectation on child's competence for school readiness constitute a small proportion in the population, such effect could be easily ignored or averaged out in the studies with variable-centered approach. Though as shown in the present study, parents with low

expectation for child's competence for school readiness and relatively higher emphasis on academic skills and de-emphasis on approaches to learning consists of only a small proportion of parents, they should not be ignored. In such sense, findings in current study shows a more complete depiction on the characteristics of parents' school readiness beliefs. Parents' school readiness beliefs are positively associated with child's academic and social emotional competence upon school entry(Elliott & Bachman, 2018; Puccioni, 2015, 2018), and lower expectation on child's competence is found to be related to lower academic school readiness skills (Slicker et al.,2021). Given the aforementioned association, results of present study could lend support for the parental intervention program especially for the minority in population of parents who hold low expectation for child's school readiness competence and need support most.

In present study, two major groups of parents place high emphasis on child's competence for school readiness, meanwhile, attach greater importance to other domains than academic skills. Such patterns could be associated with the Chinese cultural tradition, especially influenced by Confucian beliefs, which highlight the importance of knowledge acquisition, self-discipline, and the conformation to social norms (Luo et al., 2003; Sawyer et al., 2022). Apart from the potential impact of country-specific cultural beliefs, the emphasis on social-emotional, approaches to learning and self-regulatory competence in lieu of academic skills could be a result of the Chinese Ministry of Education's initiative to raise awareness and dispel the myth of school readiness for parents over the past decade. The annual Preschool Education Promotion Month aims to enhance parents' knowledge about the importance of social-emotional competence, approaches to learning and self-regulatory skills for children's school entry and their awareness of the potential negative effect of over-emphasizing academic skills before school entry in the long run (Ministry of Education of China, 2016, 2019). However, whether such a pattern of school-readiness beliefs is derived partly from the policy effect still needs to be tested and is beyond the scope of the present study.

4. PATTERNS OF PARENTS' SCHOOL-READINESS BELIEFS AND PARENTING STYLE

In the present study, three subgroups of Chinese parents were identified with regard to their school-readiness beliefs and parenting style: *Supportive parenting with a very strong emphasis on school readiness*, *Partially supportive parenting with a reflection of school readiness*, and

Weakly supportive parenting with no emphasis on school readiness. The most prevalent subgroup was *Supportive parenting with a very strong emphasis on school readiness*, while the smallest subgroup was *Weakly supportive parenting with no emphasis on school readiness*. As both school-readiness beliefs and parenting style influence a child's school readiness, characterizing parents based on the combination of these two factors could help to identify nuanced risks for a child's school readiness in family contexts and support effective parental intervention programs. To our knowledge, few previous studies have explored latent profiles based on parents' school-readiness beliefs and parenting style, thus the findings of this study are a meaningful contribution to the existing literature.

The qualitatively different configurations of variables about school-readiness beliefs and parenting style across the three subgroups identified in the present study are expressed in two ways, as level differences and as shape differences (Spurk et al., 2020). Firstly, the most dramatic configurational differences across the three profiles are the level differences of mean values of school-readiness expectation and authoritative parenting frequency. Despite the level differences across the three subgroups, more nuanced shape differences are also found across three profiles, which partially support our hypotheses. Parents with *supportive parenting with a very strong emphasis on school readiness* view academic skills as the least important, relatively, and attach the greatest importance to social-emotional competence. A similar pattern is displayed by parents with *partially supportive parenting with a reflection of school readiness*, who place the least emphasis on academic skills and the greatest emphasis on approaches to learning and self-regulatory skills. The group with *Weakly supportive parenting with no emphasis on school readiness* evinces a different pattern, with the highest importance attached to academic skills and the lowest importance attached to social-emotional competence. As school readiness beliefs and authoritative parenting are both positively associated with the school readiness outcomes of children, the characteristics of three profiles could shed light on the parental intervention program.

5. PATTERNS OF PARENTS' SCHOOL READINESS BELIEFS AND ATTITUDES REGARDING ROLES IN SCHOOL READINESS

Three profiles were identified based on parents' school readiness beliefs and attitudes regarding roles in school readiness. The first group is featuring the combination of very high overall emphasis on school readiness, high emphasis on family role and moderate emphasis on school

role in school readiness. The second group is characterized with a combination of moderate overall emphasis on school readiness, high emphasis on family role and low emphasis on school role. The third group is featuring no emphasis on school readiness, moderate emphasis on family role and low emphasis on school role. The first shows an emphasis on family involvement in school readiness and expect the partnership with schools for getting child ready for school, though they expect their roles outweigh the role of school. However, the second group emphasizes the importance of family involvement and de-emphasize the importance of responsibility of school. The third group rate the importance of family role or involvement as lowest among three groups and also show low expectation on the role of school in school readiness.

What's noteworthy, the three profiles share a common pattern concerning with the attitude regarding their roles in school readiness and consider that getting child ready for school relies more on family than school, which is consistent with prior research findings about Latino parents of low-income families in the USA(Peterson et al., 2018). Such common pattern could be a reflection of weak collaboration between parents, kindergarten and primary school concerning with child's transition to school, especially the weak role of primary school, which is rated as the lowest one among the roles of parents, kindergartens and primary schools by parents in current study. As demonstrated in many studies, the weak cooperation among parents, kindergarten and primary schools is one major barrier for child school readiness (OECD,2017), the reality could also have an impact on parents' expectations on the role of three parities in children's school readiness. However, such hypothesis needs further investigation on the underlying reasoning of parents' school readiness beliefs and their attitude regarding roles in school readiness.

6. SES AND PARENTS' SCHOOL READINESS BELIEFS

As revealed in the results, SES is associated with school readiness belief profile memberships in current study. Parents with higher SES are more likely to display the characteristics of very high expectation on child's competence for school readiness, slightly less importance of the academic competence, in comparison with high expectation and less importance of academic competence. Previous studies yielded mixed results in terms of the association between SES and parents' school-readiness beliefs (Kim et al.,2005; Sawyer et al., 2022; Barbarin et al., 2008; Piotrkowski et al., 2000; Puccioni, 2015; Slicker et al., 2021). Among these studies, the results of the present study confirm the research findings of two studies (Kim et al., 2005; Slicker et

al., 2021). Kim et al. (2005) adopted a person-centered approach based on a large sample size and found that US parents holding "High standards" beliefs about children's school-readiness competence reported having a higher income and education level in comparison with parents in the "Typical" school-readiness belief group (Kim et al.,2005). Slicker et al. (2021) revealed with their latent profile analysis based on parents' school-readiness beliefs and home learning activities, drawing on a large sample, that parents with a higher SES level are more likely to display a higher expectation of the importance of children's school-readiness competence. Other studies have multiple limitations in different ways, especially a sample size that was small (Swayer et al.,2022; Barbarin et al., 2008) or restricted to a population with a certain SES level (Barbarin et al., 2008; Piotrkowski et al., 2000), etc. Thus, given that both the present study and the above two studies adopted a person-centered approach based on large sample size, more support is lent for the positive association between SES and parents' higher expectation of the importance of children's school readiness. However, further studies need to explore this association in other populations of parents.

7. SES AND PATTERNS OF PARENTS' SCHOOL-READINESS BELIEFS AND PARENTING STYLE

SES is found to be associated with school-readiness belief profile memberships in current study, which supports our hypothesis. Parents with higher SES are more likely to display the characteristics of *Supportive parenting with a very strong emphasis on school readiness*, in comparison with the subgroup of parents with *Partially supportive parenting with a reflection of school readiness*. However, none of these factors are associated with membership in the subgroup of *Weakly supportive parenting with no emphasis on school readiness*". To our knowledge, previous research did not directly address the association between SES, parents' school-readiness beliefs and parenting style by using a quantitative approach based on a large sample size.

The results of the present study reveal that the parent profile featuring higher authoritative parenting is related to higher SES, which confirms prior variable-centered studies' findings that higher SES was related to more authoritative parenting and less authoritarian parenting, whereas lower SES was found to be related to less authoritative and more authoritarian parenting (Bradley and Corwyn, 2002; Luo et al., 2009; Xia et al., 2020). Additionally, some nuanced characteristics of parenting style profiles were found in the present study, namely, that

authoritarian parenting is low for all three groups of parents, suggesting Chinese parents tend to use less harsh and punitive parenting practices nowadays. This trend is also reported in extant literature. Although authoritarian parenting was previously reported to be a more salient feature for Chinese parents compared to their Western counterparts (Chen et al.,1997), more recent studies show that Chinese parents increasingly display more features of authoritative parenting due to the influence of contemporary child-rearing ideology (Li and Xie, 2017).

The association between higher SES and *Supportive parenting with a very strong emphasis on school readiness* shown in this study contributes to the existing literature by lending evidence to the association between SES, parents' school-readiness beliefs and parenting style. Our finding is partially consistent with the qualitative findings by Lareau (2002, 2003). In her qualitative work, Lareau pointed out that different child-rearing "cultural logics" are held by middle-class and working-class (or poor) families. "Concerted cultivation", featuring high dedication to supporting children's cognitive and social development as well as reasoning and negotiation with children, constitutes the main characteristic of middle- and upper-class parents' parenting strategies (Lareau, 2002, 2003). These attributes reflect a combination of parents' high emphasis on the importance of child's competences and the adoption of parenting practices similar to authoritative parenting. Our study results provide quantitative evidence for the association between higher SES and the characteristics of concerted cultivation, a combination of higher emphasis on their child's development and authoritative parenting. Meanwhile, the high importance attached by this group of parents to their own roles in children's school readiness echoes such findings as well. Thus, though two decades have passed since Lareau's work was published, despite comparing the US and China, similar patterns of parenting beliefs and practices could be linked to SES.

8. SES, AGE OF RESPONDENT, AND PATTERNS OF PARENTS' SCHOOL READINESS BELIEFS AND ATTITUDES REGARDING ROLES IN SCHOOL READINESS

Higher SES and older age of respondents are more correlated with *Very high overall emphasis on school readiness, high family role and moderate school role* group than *moderate overall emphasis on school readiness, high emphasis on family role and low emphasis on school role* group, as shown in the result of this study. Such association could be a result of differences of resources available due to the SES disparities. As very few studies explored the association

between SES and parents' attitudes regarding roles of family and school in school readiness, the current study reveals the potential association between higher SES and high responsibility of family for child's school readiness. Qualitative evidence from study on Australian parents in disadvantaged communities shows that parents considered school readiness as important for the child and deemed their role in school readiness as central and such role of preparing child for school as shared by parents themselves and child care services, for instance, kindergartens. Parents considered kindergarten teachers as a source for help and advice(Jose et al., 2022). However, it is difficult to conclude on the association between SES and parents' understanding or expectation about roles of their own and school in getting children ready for school due to the limitation of sample restriction. Thus, given the lack of related studies, the result of current study adds to the existing literature by revealing such potential association.

Moreover, according to the theoretical hypothesis advanced by the Lareau (2002, 2003), in the current the association of *Very high overall emphasis on school readiness, high family role and moderate school role* with higher SES could be explained by the more availability of resources for parents and confidence in communication with teachers, which are related to higher SES families. Whereas, the combination of *moderate overall emphasis on school readiness, high emphasis on family role and low emphasis on school role* could be due to less available resources for parents and less confidence in asking for help from kindergarten and school. However, such assumptions need further exploration.

9. IMPLICATIONS

Though Chinese parents and kindergarten teachers align with each other in terms of most domains of school readiness beliefs, misalignment of school readiness beliefs regarding social-emotional competence is still to be addressed. Mutual understanding between Chinese parents and kindergarten teachers about the importance of social-emotional competence shall be enhanced through communication and targeted intervention program. Meanwhile, the shared school readiness beliefs regarding social-emotional competence between kindergarten teachers and first grade teachers also shall be built to enhance continuity. The differences concerning with play belief between kindergarten teachers and first grade teachers suggest that mutual pedagogical understanding and practice shall be built through the collaboration of both parties.

Parents' school-readiness beliefs are associated with a child's competences for school readiness, as revealed by a number of studies (Barbarin et al., 2008; Puccioni, 2015, 2018). Meanwhile, the positive effect of authoritative parenting and negative effect of authoritarian parenting on a child's school readiness is revealed by previous research (Xia et al., 2020; Kessler, 2002; Gao et al., 2015; Roopnarine et at., 2006). One person-centered study shows that profiles with a higher expectation and higher frequency of parental engagement in home learning activities are associated with better school readiness, what's more, very high expectations of parents could outweigh the importance of home learning engagement and even compensate for moderate home learning activities (Slicker et al., 2021). Though our study did not examine how the distal outcomes such as children's school readiness are associated with profile memberships, on the basis of prior findings, it could be inferred that the combined positive effect of parents' school-readiness beliefs and authoritative parenting would lead to more favorable outcomes for children of parents in the subgroup of *Supportive parenting with a very strong emphasis on school readiness* compared to the other two groups. Conversely, the third subgroup, *Weakly supportive parenting with no emphasis on school readiness*, could be associated with more disadvantages in a child's school readiness. However, such an assumption needs further evidence, especially in the Chinese context.

Given the aforementioned association, the results of the present study could lend support to parental intervention programs, especially for the minority population of Chinese parents who have very low expectations with almost no emphasis on their child's school-readiness competence and engage in authoritative parenting least frequently. As revealed in our results, the risks related to a child's school readiness could be doubled for the above subgroup, and so this pattern of school-readiness beliefs and parenting style should be of the greatest concern for parental intervention programs. Such targeted intervention programs conducted in the US, particularly for disadvantaged families, show positive effects on a child's school readiness by enhancing supportive parenting, parental engagement and building up parent-teacher collaboration (Sheridan et al., 2010; Marti et al., 2018). However, these intervention programs evince a potential association between lower SES and decreased parental attendance in the program (Marti et al., 2018), while the necessity of matching the needs of the diverse backgrounds of targeted families is stressed (Sheridan et al., 2010; Marti et al., 2018). Thus, it is necessary to offer diverse support in intervention programs for targeted families, especially those with lower-SES backgrounds. Besides, three subgroups of parents with different school-readiness beliefs and parenting style suggest that a person-centered transition towards support

and collaboration between the family, the preschool institution and the primary school is necessary. For instance, given that *Supportive parenting with a strong emphasis on school readiness* constitutes the largest subgroup in the present sample and that the transition to school should tackle the barriers to mutual understanding and collaboration between parents, preschools and primary schools to facilitate continuity for children (Organisation for Economic Co-Operation and Development, 2017), such a major pattern of parents' school-readiness beliefs and parenting style could help schools to better understand parents and build up mutual understanding with parents from a cultural perspective.

Finally, as the three profiles based on the combination of parental school readiness beliefs and attitude regarding role in school readiness show, risks of children's school readiness also could combine in certain subgroup of parents. For instance, the subgroup of parents placing *no emphasis on school readiness, low emphasis on family role and low emphasis on school role* could be a reflection of a lack of parental awareness about the overall importance of transition to school, the role that family could play, as well as the lack of resources available. From this point, communication between schools (both kindergarten and primary school) and parents shall focus on improving the parental involvement and facilitating the access to resources for parents.

10. LIMITATIONS AND FUTURE DIRECTIONS

This study's strengths lie in several areas. Firstly, the large sample size, greater than the minimum recommended size of 500 (Nylund et al., 2007), allowed us to identify subgroups via LPA with sufficient accuracy. Secondly, the sample covers a wide range of SES to allow us to explore the association between SES and patterns of school-readiness beliefs and parenting style. Thirdly, with measurement invariance checked, the school readiness belief scale used in the current study could be informative for further studies to use for the comparison in other samples of parents and kindergarten teachers. Meanwhile, the play belief scale could be used for comparison between kindergarten teachers and primary school teachers in other studies. Lastly, with a powerful person-centered approach, this study simultaneously examines profiles based on a combination of contributive factors and risks related to children's school readiness, as well as the covariates associated with the given profile membership, which was seldom addressed before.

However, this research is not without limitations. Results should be interpreted and generalized with caution. Though we drew on a large sample of parents in Chongqing, such a sample is far

from representative of all Chinese parents as China has a very large population covering vast geographic and socio-cultural diversities; the three patterns identified in our study might not be applicable to parents in other areas. Consequently, future research shall examine whether these patterns are to be found in other samples. And though school readiness beliefs were compared at a latent level in the current study between parents and kindergarten teachers, the limitation of the scale does not allow for the comparison between kindergarten teachers and primary school teachers, which shall be examined further in the future. Additionally, some methodological limitations in the present study are also worth considering. The self-reported school-readiness beliefs, play belief, parenting style, attitude regarding roles in school readiness could be biased due to their perceived social desirability, and their reliability could be compromised by certain response sets from the respondents. Further evidence from observational data is needed. For the potentially most disadvantaged subgroup identified in this study, which displays very low expectations and the lowest level of authoritative parenting, we failed to identify factors associated with membership in the profile. Further studies should explore with in-depth interviews or take other covariates into consideration, such as a child's development delay, parents' personal educational experience, etc. Finally, distal outcomes associated with the three patterns of school-readiness beliefs and parenting style should be explored to lend evidence to the predictive validity of such patterns.

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ANNEX I PARENTS' QUESTIONNAIRE FOR SCHOOL READINESS BELIEFS

Dear parents:

This questionnaire asks about your child-rearing and your opinion on child's school entry. We are interested in how you get along with your child and what you think about child's abilities related to entering primary school. There are no right or wrong answers to the questions listed. Your information will be used only for the research purpose and be very useful for improving our understanding about child's school entry, furthermore, will help to make entering school easier for children. Besides, all your information will be kept confidential and just feel free to answer all the questions in the questionnaire.

Section A About starting school and parenting

A1 Please read the following statements and on a scale of 1 to 5, where 1 = not important and 5 = very important, express the extent to which you agree with each statement.

INSTRUCTION: Please circle one of the codes for each statement.

For the following items, choose a number to indicate "how important do you think it is for a child starting school."

		Not important				**Very important**
1	Read simple words and simple stories.	1	2	3	4	5
2	Is curious, asks lots of questions about how and why.	1	2	3	4	5
3	Is self-confident.	1	2	3	4	5
4	Has patience.	1	2	3	4	5
5	Dresses himself/herself independently.	1	2	3	4	5
6	Uses good manner.	1	2	3	4	5

7	Imaginative or creative.	1	2	3	4	5
8	Don't hit/bite and has self-control.	1	2	3	4	5
9	Tolerates frustration/Perseveres in tasks.	1	2	3	4	5
10	Uses pencil to write/uses a scissors.	1	2	3	4	5
11	Jumps/throws ball, skips, runs, hops, walks up/down stairs.	1	2	3	4	5
12	Writes words other than his/her name.	1	2	3	4	5
13	Knows most letters of alphabets/many characters.	1	2	3	4	5
14	Willing to be corrected.	1	2	3	4	5
15	Counts by himself/herself.	1	2	3	4	5
16	Plays well with other children/ Gets along with other children.	1	2	3	4	5
17	Follows directions.	1	2	3	4	5
18	Sits still and pays attention to teacher.	1	2	3	4	5
19	Is not disruptive of the class.	1	2	3	4	5
20	Completes tasks on time.	1	2	3	4	5
21	Writes his/her name.	1	2	3	4	5
22	Shows independence/Works independently.	1	2	3	4	5
23	Is eager to learn and thinks of learning as fun.	1	2	3	4	5
24	Shows respect for others.	1	2	3	4	5
25	Recognizes patterns and sorts by size/colors.	1	2	3	4	5

26	Has good problem-solving skills.	1	2	3	4	5
27	Identifies primary colors and shapes.	1	2	3	4	5
28	Has a good vocabulary.	1	2	3	4	5
29	Stacks blocks by him/herself.	1	2	3	4	5
30	Communicates needs/wants verbally.	1	2	3	4	5
31	Can do simple addition/subtraction.	1	2	3	4	5
32	Takes turns and shares.	1	2	3	4	5
33	Is sensitive to other children's feelings.	1	2	3	4	5

A2 Please read the following items and think about how often you engage in the different parenting practices listed below. Rate from 1 = "Never" and 5 = "Always", to indicate the frequency of which you do the following things.

INSTRUCTION: Please circle one of the codes for each statement.

		Never	**Once in a while**	**About half of the time**	**Very often**	**Always**
1	Responsive to child's feelings or needs.	1	2	3	4	5
2	Use physical punishment as a way of disciplining our child.	1	2	3	4	5
3	Take child's desires into account before asking the child to do something.	1	2	3	4	5
4	When child asks why (he)(she) has to conform, state: because I said so, or I am your parent and I want you to.	1	2	3	4	5

5	Explain to child how we feel about the child's good and bad behavior.	1	2	3	4	5
6	Spank when our child is disobedient.	1	2	3	4	5
7	Encourage child to talk about the child's troubles.	1	2	3	4	5
8	Find it difficult to discipline child.	1	2	3	4	5
9	Encourage child to freely express (him/herself) even when disagreeing with parents.	1	2	3	4	5
10	Punish by taking privileges away from child with little if any explanations.	1	2	3	4	5
11	Emphasize the reasons for rules.	1	2	3	4	5
12	Give comfort and understanding when child is upset.	1	2	3	4	5
13	Yell or shout when child misbehaves.	1	2	3	4	5
14	Give praise when child is good.	1	2	3	4	5
15	Give into child when (he)(she) causes a commotion about something.	1	2	3	4	5
16	Explode in anger towards child.	1	2	3	4	5
17	Grab child when being disobedient.	1	2	3	4	5
18	Threaten child with punishment more often than actually giving it.	1	2	3	4	5
19	Take into account child's preferences in making plans for the family.	1	2	3	4	5
20	State punishments to child and does not actually do them.	1	2	3	4	5

21	Show respect for child's opinions by encouraging child to express them.	1	2	3	4	5
22	Allow child to give input into family rules.	1	2	3	4	5
23	Scold and criticize to make child improve.	1	2	3	4	5
24	Spoil child.	1	2	3	4	5
25	Give child reasons why rules should be obeyed.	1	2	3	4	5
26	Use threats as punishment with little or no justification.	1	2	3	4	5
27	Have warm and intimate times together with child.	1	2	3	4	5
28	Punish by putting child off somewhere alone with little if any explanations.	1	2	3	4	5
29	Help child to understand the impact of behavior by encouraging child to talk about the consequences of his/her own actions.	1	2	3	4	5
30	Scold and criticize when child's behavior doesn't meet our expectations.	1	2	3	4	5
31	Explain the consequences of the child's behavior.	1	2	3	4	5
32	Slap child when the child misbehaves.	1	2	3	4	5

A3 Please read the following statements and on a scale of 1 to 5, where 1 = Disagree and 5 = very much agree, express the extent to which you agree with each statement.

INSTRUCTION: Please circle one of the codes for each statement.

		Disagree				**Very Much Agree**
1	Play can help my child develop social skills, such as cooperating and making friends.	1	2	3	4	5
2	I have a lot of fun with my child when we play together.	1	2	3	4	5
3	Play can improve my child's language and communication abilities.	1	2	3	4	5
4	I can teach my child social skills during play.	1	2	3	4	5
5	I can help my child learn to control his or her emotions during play.	1	2	3	4	5
6	Playing at home will help my child get ready for school.	1	2	3	4	5
7	My child will get more out of play if I play with him or her.	1	2	3	4	5
8	Play can help my child develop better thinking abilities.	1	2	3	4	5
9	Playing with my child is one of my favorite things to do.	1	2	3	4	5

10	If I take time to play with my child, s/he will be better at playing with other children.	1	2	3	4	5
11	Play helps my child learn how to express his or her feelings.	1	2	3	4	5
12	Play is a fun activity for my child.	1	2	3	4	5
13	Playing together helps me build a good relationship with my child.	1	2	3	4	5
14	My child has a lot of fun when we play together.	1	2	3	4	5
15	Through play, my child develops new skills and abilities.	1	2	3	4	5
16	Playing at school will help my child get ready for school.	1	2	3	4	5
17	It is important for me to participate in play with my child.	1	2	3	4	5
18	Play does not help my child learn academic skills like counting or recognizing letters.	1	2	3	4	5
19	I would rather read with my child than play together.	1	2	3	4	5
20	Play does not influence my child's ability to solve problems.	1	2	3	4	5
21	It is more important for my child to have good academic skills than to play well with other children.	1	2	3	4	5
22	Playtime is not a high priority in my home.	1	2	3	4	5

23	Reading to my child is more worthwhile than playing with him or her.	1	2	3	4	5
24	I do not think it is very important for other family members to play with my child.	1	2	3	4	5
25	I do not think my child learns important skills by playing.	1	2	3	4	5

A4 Please read the following statements and on a scale of 1 to 5, where 1 = Disagree and 5 = very much agree, express the extent to which you agree with each statement.

		Disagree				Very much agree
1	Preparing my child for school is important to me and my family	1	2	3	4	5
2	Preparing my child for school will help my child succeed later in school	1	2	3	4	5
3	Preparing my child for school is my responsibility as a parent	1	2	3	4	5
4	Preparing my child for school is the responsibility of kindergarten teachers	1	2	3	4	5
5	Preparing my child for school is the responsibility of the primary school	1	2	3	4	5

Section B About your child and you

B1. Is your child, about which this questionnaire is, a boy or a girl?

(Select one of the options)

Boy 1

Girl 2

B2. When was your child born?

(Please enter the month and year of birth by digits.)

Moon..... Year.....

B3. Where is your child's kindergarten located?

Rural 1

Urban 2

B4. Which type is your child's kindergarten?

Public 1

Private 2

B5. Which class is your child in?

(Please write down the class number.)

.....

B6. How old are you?

(Please write down your age.)

..... Years old

B7. Please state your relationship with the child:

INSTRUCTION: Please circle the code for one of the answers.

Father 1

Mother 2

Other (list) .....

B8. Is your child in your family?

INSTRUCTION: Please circle the code for one of the answers.

The only child 1

First but not only child 2

The second child 3

The third child 4

Other (list) .....

B9. About how many books are there in your home? (Do not count ebooks, magazines, newspapers, or children's books.)

a) 0-10

b) 11-25

c) 26-100

d) 101-200

e) More than 200

B10. About how many children's books are there in your home? (Do not count children's eBooks, magazines, or school books.)

a) 0-10

b) 11-25

c) 26-50

d) 51-100

e)More than 100

B11. What is the highest level of education completed by the child's parents?

Father □ Mother □

a) Did not go to school

b) Some <Primary education—ISCED Level 1 or Lower secondary education—ISCED Level 2>

c) <Lower secondary education—ISCED Level 2>

d) <Upper secondary education—ISCED Level 3>

e) <Post-secondary, non-tertiary education—ISCED Level 4>

f) <Short-cycle tertiary education—ISCED Level 5>

g)<Bachelor's or equivalent level—ISCED Level 6>

h)<Postgraduate degree: Master's—ISCED Level 7 or Doctor—ISCED Level 8>

i) Not applicable

B12. What kind of work do the child's <parents/guardians> do for their main jobs?

Each category has a few examples to help you decide the correct category. If the <parent/guardian> is not working now, think about the last job that he/she had.

a) Has never worked for pay

b) Small Business Owner

Includes owners of small businesses (fewer than 25 employees) such as retail shops, services, restaurants

c) Clerical Worker

Includes office clerks; secretaries; typists; data entry operators; customer service clerks

d) Service or Sales Worker

Includes travel attendants; restaurant service workers; personal care workers; protective service workers; salespersons; street vendors

e) Skilled Agricultural or Fishery Worker

Includes farmers; forestry workers; fishery workers; hunters and trappers

f) Craft or Trade Worker

Includes builders, carpenters, plumbers, electricians, metal workers; machine mechanics; handicraft workers

g) Plant or Machine Operator

Includes plant and machine operators; assembly-line operators; motor-vehicle drivers

h) General Laborers

Includes domestic helpers and cleaners; building caretakers; messengers, porters, and doorkeepers; farm, fishery, agricultural, and construction workers

i) Corporate Manager or Senior Official

Includes corporate managers such as managers of large companies (25 or more employees) or managers of departments within large companies; legislators or senior government officials; senior officials of special-interest organizations; military officers

j) Professional

Includes scientists; mathematicians; computer scientists; architects; engineers; life science and health professionals; teachers; legal professionals; police officers; social scientists; writers and artists; religious professionals

k) Technician or Associate Professional

Includes science, engineering, and computer associates and technicians; life science and health technicians and assistants; teacher aides; finance and sales associate professionals; business service agents; administrative assistants

l) Not applicable

B13.Before COVID-19, how often do your families go out for a travel in a year?

a) Never

b) Once

c) Twice to three times

d) More than three times

B14.What is your annual household income?

a) less than USD 776 (<5000 RMB)

b) USD 776-3104 (5000-20000 RMB)

c) USD 3105-7761 (20001-50000 RMB)

d) USD 7762-12417 (50001-80000 RMB)

e) USD 12418-15522 (80001-100000 RMB)

f) more than USD 15522 (>100000 RMB)

C. Conclusion

C1. A place for notes.

What else opinions do you have about children's school readiness? Any other comments and questions about school readiness, here you can write down.

……

……

……
…

Dear parents, thank you very much for your answers and your willingness to fill out the questionnaire.

家长入学准备观念问卷

(Questionnaires for parents in Chinese)

尊敬的家长，您好！

本问卷主要调查您对孩子入小学及养育孩子的看法。答案没有对错之分，请您放心填写。您提供的信息对帮助孩子顺利适应小学生活具有重要意义。您填写的信息我们会严格保密，仅供研究使用。感谢您的参与！

第一部分：关于入小学

A1. 请您仔细阅读下面的说法，按照您的同意程度，选择与您的情况相符合的选项。在您看来，对于您家中即将上小学一年级的孩子而言，下列能力的重要性如何？请根据您认为的重要程度选择合适的选项。

		不重要				非常重要
1	会读简单的字和故事	1	2	3	4	5
2	好奇，问很多为什么，怎么样的问题	1	2	3	4	5
3	对自己有自信	1	2	3	4	5
4	有耐心	1	2	3	4	5
5	自己穿衣服	1	2	3	4	5

6	有礼貌	1	2	3	4	5
7	有想象力/创造力	1	2	3	4	5
8	能控制自己的行为，不打人/咬人	1	2	3	4	5
9	能耐受挫折，有坚持性	1	2	3	4	5
10	会用铅笔写字/使用剪刀	1	2	3	4	5
11	会跑、跳、上下楼、抛球、跳绳	1	2	3	4	5
12	会写自己名字以外的字	1	2	3	4	5
13	认识大部分拼音字母/许多汉字	1	2	3	4	5
14	愿意接受意见并改正	1	2	3	4	5
15	会自己数数	1	2	3	4	5
16	跟其他孩子相处得好	1	2	3	4	5
17	听从指令	1	2	3	4	5
18	能坐好并注意听讲	1	2	3	4	5
19	不扰乱课堂	1	2	3	4	5
20	按时完成任务	1	2	3	4	5
21	会写自己的名字	1	2	3	4	5
22	独立学习做事，表现出独立性	1	2	3	4	5

23	渴望学习，认为学习是有趣的	1	2	3	4	5
24	尊重他人	1	2	3	4	5
25	能根据大小和颜色分类，认识规律	1	2	3	4	5
26	会解决同伴交往中遇到的问题	1	2	3	4	5
27	认识基本的颜色和形状	1	2	3	4	5
28	掌握丰富的词汇	1	2	3	4	5
29	能自己搭积木	1	2	3	4	5
30	能口头表达自己的需要	1	2	3	4	5
31	会简单的加减法	1	2	3	4	5
32	会轮流和分享	1	2	3	4	5
33	对其他孩子的感受敏感	1	2	3	4	5

第二部分： 关于孩子的养育

A2. 以下是一些有关您与孩子相处行为的说法，请根据您的情况，评定您会做出下列每一项行为的频繁程度，并圈出与您情况相符的答案。

		从不	偶尔	有时	通常	经常
1	会回应孩子的感受及需要。	1	2	3	4	5
2	管教孩子时会采用体罚。	1	2	3	4	5
3	在要求孩子做某件事前，会考虑他/她的意愿。	1	2	3	4	5

4	当孩子问他/她为什么必须服从的时候，对孩子说：“因为这是我说的”，或“因为我是你的父母，我想让你这样做。”	1	2	3	4	5
5	向孩子解释我们对他/她好的行为和坏的行为有怎样的感受。	1	2	3	4	5
6	当孩子不听话的时候打他/她屁股。	1	2	3	4	5
7	鼓励孩子说出他/她的烦恼。	1	2	3	4	5
8	觉得自己难以管教孩子。	1	2	3	4	5
9	即使跟孩子跟父母意见不同，也鼓励他/她表达自己的想法。	1	2	3	4	5
10	几乎不进行任何解释，就把孩子原本享有的特权拿走，借以惩罚孩子。	1	2	3	4	5
11	强调规则背后的理由。	1	2	3	4	5
12	当孩子伤心难过時，给予理解和安慰。	1	2	3	4	5
13	当孩子做错的時候，对着孩子吼叫。	1	2	3	4	5
14	当孩子表现好的時候给予表扬。	1	2	3	4	5
15	当孩子因一些东西吵闹时，我会顺从孩子。	1	2	3	4	5
16	对孩子大发雷霆。	1	2	3	4	5
17	多以惩罚来威胁孩子，但实际上较少实施。	1	2	3	4	5
18	在做家庭计划时，会考虑孩子的喜好。	1	2	3	4	5

19	当孩子不服从的時候，会抓住孩子，不让他/她乱动。	1	2	3	4	5
20	告诉孩子要惩罚他/她，但实际上没有进行。	1	2	3	4	5
21	鼓励孩子表达自己的想法以示尊重他/她的意见。	1	2	3	4	5
22	让孩子对家规提意见。	1	2	3	4	5
23	为了促使孩子进步，会责备及批评他/她。	1	2	3	4	5
24	溺爱孩子。	1	2	3	4	5
25	向孩子解释为什么要遵守规则。	1	2	3	4	5
26	在沒有充分理由的情况下，用威胁来惩罚孩子。	1	2	3	4	5
27	与孩子之间有关系亲密温暖的时刻。	1	2	3	4	5
28	在沒有充分理由的情况下，把孩子单独放在某个地方以示惩罚，例如不让出房门。	1	2	3	4	5
29	通过鼓励孩子谈论自己的行为后果，来帮助孩子理解他/她的行为所造成的影响。	1	2	3	4	5
30	当孩子未能达到我的期望，会责骂或批评他/她。	1	2	3	4	5
31	向孩子解释他/她的行为会产生的后果。	1	2	3	4	5
32	当孩子行为不当的时候，用手掌拍打孩子。	1	2	3	4	5

A3. 以下是关于游戏或玩耍的说法，请根据您的同意程度，选择合适的选项。

		非常不同意	不同意	一般	同意	非常同意
1	玩耍能提高孩子的社交能力	1	2	3	4	5
2	我和孩子一起玩耍的过程中享受到了很大的乐趣	1	2	3	4	5
3	玩耍能提高孩子的语言和沟通能力	1	2	3	4	5
4	在玩耍过程中我会教孩子一些社交知识	1	2	3	4	5
5	在玩耍过程中，我可以教会并帮助孩子控制他/她的情绪	1	2	3	4	5
6	孩子在家玩耍可以帮助孩子为小学做好准备	1	2	3	4	5
7	如果我和孩子一起玩耍，孩子会从中收益更多	1	2	3	4	5
8	玩耍有助于提高孩子的思考能力	1	2	3	4	5
9	和孩子玩耍是我最喜欢做的事情之一	1	2	3	4	5
10	如果我抽时间和孩子一起玩耍，孩子可能会更好地和其他孩子相处	1	2	3	4	5
11	玩耍能帮助孩子表达他/她的想法和感受	1	2	3	4	5
12	玩耍给孩子带来乐趣	1	2	3	4	5
13	和孩子一起玩耍会让我和孩子的关系更融洽	1	2	3	4	5

14	孩子非常喜欢和我一起玩耍	1	2	3	4	5
15	通过玩耍，孩子可以掌握新的知识和能力	1	2	3	4	5
16	孩子在学校玩耍可以帮助孩子为小学做好准备	1	2	3	4	5
17	参与孩子的玩耍对我来说很重要	1	2	3	4	5
18	玩耍并不能帮助孩子获得学习技能，如数数、认字等	1	2	3	4	5
19	我宁愿和孩子一起阅读而不是和孩子一起玩耍	1	2	3	4	5
20	玩耍对孩子解决问题的能力毫无帮助	1	2	3	4	5
21	孩子掌握良好的学习技能比能够和别人融洽地玩耍更为重要	1	2	3	4	5
22	玩耍不是我们家最重要的事情	1	2	3	4	5
23	我认为和孩子一起阅读比和孩子一起玩耍更有价值	1	2	3	4	5
24	我认为家里的其他人和孩子的玩耍并不是很重要	1	2	3	4	5
25	我不认为孩子会在玩耍中学到有用的知识和技能	1	2	3	4	5

A4. 以下关于入学准备的看法，请根据您的同意程度，选择合适的选项。

		非常不同意	不同意	一般	同意	非常同意
1	为孩子做好入小学的准备对于我和家人来说是一件重要的事情	1	2	3	4	5
2	为孩子做好入小学的准备能够帮助他/她以后学业取得成功	1	2	3	4	5
3	为孩子做好入学准备是我作为父母的责任	1	2	3	4	5
4	为孩子做好入学准备是幼儿园的责任	1	2	3	4	5
5	为孩子做好入学准备是小学的责任	1	2	3	4	5

第二部分：基本信息

B1 您孩子的性别

○男　　○女

B2 您孩子的出生年月：

_____

B3 您的孩子是家中的：

○独生子女

○第一个孩子（非独生子女）

○第二个孩子

○第三个孩子

○其他 _____

B4 您孩子就读的幼儿园位于：

○农村

○城市

B5 您孩子就读的幼儿园是：

○公办

○民办

B6 您的年龄是：

_____

B7 您是孩子的：

○爸爸

○妈妈

○祖辈（爷爷奶奶或外公外婆）

○其他 _____

B8 您家中大约有多少本书（不包括电子书、杂志、报纸和儿童书籍）：

○0-10

○11-25

○26-100

○101-200

○200 以上

B9 您家中大约有多少本儿童书籍(不包括儿童的电子书，电子杂志和学校教材)：

○0-10

○11-25

○26-50

○51-100

○100 以上

B10 孩子父亲的最高学历水平为：

○未上过学

○小学

○初中

○高中或职高

○大专

○大学本科或同等学历

○硕士研究生

○博士研究生

○其他 _____ *

B11 孩子母亲的最高学历水平为：

○未上过学

○小学

○初中

○高中或职高

○大专

○大学本科或同等学历

○硕士研究生

○博士研究生

○其他 _____ *

B12 孩子父亲目前从事的职业：

○无业

○个体经营者（餐馆、零售店等）

○文职人员、办事人员（秘书、打字员、客服等）

○服务业或销售人员（乘务员、餐馆服务人员、销售人员）

○农渔业（农民、林业工人、渔业工人等）

○非熟练工（保洁、家政、保安、建筑工人等）

○公务员

○管理人员（公司经理、部门经理、军官）

○专业人员（教师、律师、建筑师、医生、作家、画家）

○技术人员或研发人员（技术人员、行政助理）

○其他

B13 孩子母亲目前从事的职业：

○无业

○个体经营者（餐馆、零售店等）

○文职人员、办事人员（秘书、打字员、客服等）

○服务业或销售人员（乘务员、餐馆服务人员、销售人员）

○农渔业（农民、林业工人、渔业工人等）

○非熟练工（保洁、家政、保安、建筑工人等）

○公务员

○管理人员（公司经理、部门经理、军官）

○专业人员（教师、律师、建筑师、医生、作家、画家）

○技术人员或研发人员（技术人员、行政助理）

○其他 _____ *

B14 在新冠疫情前，您和家人每年大约出行旅游几次？

○从不

○1 次

○2-3 次

○3 次以上

B15 您的家庭年收入约为：

○少于 5 千

○5 千-2 万

○2 万-5 万

○5 万-8 万

○8 万-10 万

○10 万-15 万

○15 万-20 万

○20 万-30 万

○30 万以上

尊敬的家长，感谢您的认真填写！

ANNEX II QUESTIONNAIRE FOR SCHOOL READINESS BELIEFS OF KINDERGARTEN/PRIMARY SCHOOL TEACHERS

Dear teachers:

This questionnaire asks about your opinion on child's school entry. We are interested in what you think about child's abilities related to entering primary school. There are no right or wrong answers to the questions listed. Your information will be used only for the research purpose and be very useful for improving our understanding about child's school entry, furthermore, will help to make entering school easier for children. Besides, all your information will be kept confidential and just feel free to answer all the questions in the questionnaire.

Section A About starting school and teaching

A1 Please read the following statements and on a scale of 1 to 5, where 1 = not important and 5 = very important, express the extent to which you agree with each statement.

INSTRUCTION: Please circle one of the codes for each statement.

For the following items, choose a number to indicate "how important do you think it is for a child starting school."

		Not important				**Very important**
1	Read simple words and simple stories.	1	2	3	4	5
2	Is curious, asks lots of questions about how and why.	1	2	3	4	5
3	Is self-confident.	1	2	3	4	5
4	Has patience.	1	2	3	4	5
5	Dresses himself/herself independently.	1	2	3	4	5
6	Uses good manner.	1	2	3	4	5
7	Imaginative or creative.	1	2	3	4	5

8	Don’t hit/bite and has self-control.	1	2	3	4	5
9	Tolerates frustration/Perseveres in tasks.	1	2	3	4	5
10	Uses pencil to write/uses a scissors.	1	2	3	4	5
11	Jumps/throws ball, skips, runs, hops, walks up/down stairs.	1	2	3	4	5
12	Writes words other than his/her name.	1	2	3	4	5
13	Knows most letters of alphabets/many characters.	1	2	3	4	5
14	Willing to be corrected.	1	2	3	4	5
15	Counts by himself/herself.	1	2	3	4	5
16	Plays well with other children/ Gets along with other children.	1	2	3	4	5
17	Follows directions.	1	2	3	4	5
18	Sits still and pays attention to teacher.	1	2	3	4	5
19	Is not disruptive of the class.	1	2	3	4	5
20	Completes tasks on time.	1	2	3	4	5
21	Writes his/her name.	1	2	3	4	5
22	Shows independence/Works independently.	1	2	3	4	5
23	Is eager to learn and thinks of learning as fun.	1	2	3	4	5
24	Shows respect for others.	1	2	3	4	5
25	Recognizes patterns and sorts by size/colors.	1	2	3	4	5
26	Has good problem-solving skills.	1	2	3	4	5

27	Identifies primary colors and shapes.	1	2	3	4	5
28	Has a good vocabulary.	1	2	3	4	5
29	Stacks blocks by him/herself.	1	2	3	4	5
30	Communicates needs/wants verbally.	1	2	3	4	5
31	Can do simple addition/subtraction.	1	2	3	4	5
32	Takes turns and shares.	1	2	3	4	5
33	Is sensitive to other children's feelings.	1	2	3	4	5

A2 Please read the following statements and on a scale of 1 to 5, where 1 = Disagree and 5 = very much agree, express the extent to which you agree with each statement.

INSTRUCTION: Please circle one of the codes for each statement.

		Disagree				Very Much Agree
1	Play can help children develop social skills, such as cooperating and making friends.	1	2	3	4	5
	Play can improve children's language and communication abilities.	1	2	3	4	5
	I can teach children social skills during play.	1	2	3	4	5
	I can help children learn to control their emotions during play.	1	2	3	4	5
	Playing at home will help children get ready for school.	1	2	3	4	5
	Play can help children develop better thinking abilities.	1	2	3	4	5

	Play helps children learn how to express their feelings.	1	2	3	4	5
	Play is a fun activity for children.	1	2	3	4	5
	Through play, children can develop new skills and abilities.	1	2	3	4	5
	Playing in kindergarten will help a child get ready for school.	1	2	3	4	5
	It is important for a teacher to participate in play with children.	1	2	3	4	5
	Play does not help children learn academic skills like counting or recognizing letters.	1	2	3	4	5
	Play does not influence child's ability to solve problems.	1	2	3	4	5
	It is more important for children to have good academic skills than to play well with other children.	1	2	3	4	5
	Reading to children is more worthwhile than playing with them.	1	2	3	4	5
	I do not think it is very important for teachers to play with a child.	1	2	3	4	5
	I do not think children learns important skills by playing.	1	2	3	4	5

Section B About you

B1. Where is your kindergarten/school located?

Rural 1

Urban 2

B2. Which type is your kindergarten/school?

Public 1

Private 2

B3. Which class are you teaching? Please write down your class number

.....

B4. How old are you?

(Please write down your age.)

..... Years old

B5. How many years have you been working as a teacher in kindergarten(for kindergarten teachers)/primary school(for primary school teachers)?

.....

B6. How many students are there in your class?

.....

B7. How many teachers do you have in your class?

.....

B8. Have you ever worked in kindergartens (for primary school teachers)/primary schools (for kindergarten teachers)? Please circle the code for one of the answers.

Yes 1 (If yes, go to B9)

No 2 (If no, skip B9)

B9. How many years did you work in primary school(for kindergarten teachers)/kindergarten(for primary school teachers)?

.....

B10. What is your highest level of education?

a) <Post-secondary, non-tertiary education—ISCED Level 4>

b) <Short-cycle tertiary education—ISCED Level 5>

c)<Bachelor's and equivalent level—ISCED Level 6>

d)<Postgraduate degree and above : Master's—ISCED Level 7 or Doctor—ISCED Level 8>

B11. Have you ever participated in any trainings on facilitating children's transition to school? Please circle the code for one of the answers.

Yes 1 (If yes, go to B12)

No 2 (If no, skip B12)

B12. How many times did you participate in trainings on facilitating children's transition to school?

a)1-2 times

b)3-5 times

c)More than 5 times

B13. Have you ever participated in any seminars or discussions on facilitating transition to school with primary school teachers (for kindergarten teachers)/kindergarten teachers(for primary school teachers)?

Yes 1 (If yes, go to B14)

No 2 (If no, skip B14)

B14. How many times did you participate in seminars or discussions on facilitating transition to school with primary school teachers(for kindergarten teachers)/kindergarten teachers(for primary school teachers)?

a)1-2 times

b)3-5 times

c)More than 5 times

C. Conclusion

C1. A place for notes.

What else opinions do you have about children's school readiness? Any other comments and questions about school readiness, here you can write down.

……

……

……

…

Dear teachers, thank you very much for your answers and your willingness to fill out the questionnaire.

教师入学准备观念问卷

(Questionnaires for teachers in Chinese)

尊敬的老师，您好！

本问卷主要调查您对于儿童入学准备及幼小衔接的一些看法。答案没有对错之分，请您放心填写。您提供的信息对于促进儿童顺利过渡到小学生活具有重要意义。您填写的信息我们会严格保密，仅供研究使用。感谢您的参与！

第一部分 关于入小学

A1. 请您仔细阅读下面的说法，按照您的同意程度，选择与您的情况相符合的选项。在您看来，对于即将上小学一年级的孩子而言，下列能力的重要性如何？请根据您认为的重要程度选择合适的选项。

		不重要				非常重要
1	会读简单的字和故事	1	2	3	4	5
2	好奇，问很多为什么，怎么样的问题	1	2	3	4	5

3	对自己有自信	1	2	3	4	5
4	有耐心	1	2	3	4	5
5	自己穿衣服	1	2	3	4	5
6	有礼貌	1	2	3	4	5
7	有想象力/创造力	1	2	3	4	5
8	能控制自己的行为,不打人，不咬人	1	2	3	4	5
9	能耐受挫折，有坚持性	1	2	3	4	5
10	会用铅笔写字/使用剪刀	1	2	3	4	5
11	会跑、跳、上下楼、抛球、跳绳	1	2	3	4	5
12	会写自己名字以外的字	1	2	3	4	5
13	认识大部分拼音字母/许多汉字	1	2	3	4	5
14	愿意接受意见并改正	1	2	3	4	5
15	会自己数数	1	2	3	4	5
16	跟其他孩子相处得好	1	2	3	4	5
17	听从指令	1	2	3	4	5
18	能坐好并注意听讲	1	2	3	4	5
19	不扰乱课堂	1	2	3	4	5
20	按时完成任务	1	2	3	4	5
21	会写自己的名字	1	2	3	4	5

22	独立学习做事，表现出独立性	1	2	3	4	5
23	渴望学习，认为学习是有趣的	1	2	3	4	5
24	尊重他人	1	2	3	4	5
25	能根据大小和颜色分类，认识规律	1	2	3	4	5
26	会解决同伴交往中遇到的问题	1	2	3	4	5
27	认识基本的颜色和形状	1	2	3	4	5
28	掌握丰富的词汇	1	2	3	4	5
29	能自己搭积木	1	2	3	4	5
30	能口头表达自己的需要	1	2	3	4	5
31	会简单的加减法	1	2	3	4	5
32	会轮流和分享	1	2	3	4	5
33	对其他孩子的感受敏感	1	2	3	4	5

A2. 以下是关于游戏或玩耍的说法，请根据您的同意程度，选择合适的选项。

		非常不同意				非常同意
1	玩耍能提高儿童的社交能力	1	2	3	4	5
2	玩耍能提高儿童的语言和沟通能力	1	2	3	4	5
3	在玩耍过程中我会教儿童一些社交知识	1	2	3	4	5

4	在玩耍过程中，我可以教会并帮助儿童控制他/她的情绪	1	2	3	4	5
5	儿童在家玩耍可以帮助儿童为小学做好准备	1	2	3	4	5
6	玩耍有助于提高儿童的思考能力	1	2	3	4	5
7	玩耍能帮助儿童表达他/她的想法和感受	1	2	3	4	5
8	玩耍给儿童带来乐趣	1	2	3	4	5
9	通过玩耍，儿童可以掌握新的知识和能力	1	2	3	4	5
10	儿童在幼儿园玩耍可以帮助孩子为小学做好准备	1	2	3	4	5
11	参与儿童的玩耍对教师来说很重要	1	2	3	4	5
12	玩耍并不能帮助儿童获得学习技能，如数数、认字等	1	2	3	4	5
13	玩耍对儿童解决问题的能力毫无帮助	1	2	3	4	5
14	儿童掌握良好的学习技能比能够和别人融洽地玩耍更为重要	1	2	3	4	5
15	我认为和儿童一起阅读比和儿童一起玩耍更有价值	1	2	3	4	5
16	我不认为跟儿童一起玩耍对于教师而言很重要	1	2	3	4	5

17	我不认为儿童会在玩耍中学到有用的知识和技能	1	2	3	4	5

第二部分：基本信息

B1.您就职的幼儿园（对于幼儿教师）/小学（对小学教师）位于：

○农村

○城市

B2.您就职的幼儿园是：

○公办

○民办

B3.您所在的班级是:

请填写您的班级编号，入：1 班，2 班...

_____

B4.您的年龄是多少岁？

_____

B5.您的教龄是多少年？

_____

B6.您所在班级有几个幼儿？

_____

B7.您所在班级有几位教师？

_____

B8.您是否有过在小学（对于幼儿教师）/幼儿园（对于小学教师）的工作经历？

○是

○否

B9.您在小学（对幼儿教师）/幼儿园（对小学教师）工作过几年？

工作年数，请填入整数

_____

B10.您的最高学历是：

○专科以下

○专科或同等学历

○本科或同等学历

○硕士及以上

B11.您是否参加过幼小衔接相关的培训？

○是

○否

B12.您参加过几次幼小衔接相关培训？

○1-2 次

○3-5 次

○5 次以上

B13.您是否参加过与小学（对幼儿教师）/幼儿园（对小学教师）共同开展的幼小衔接联合教研活动？

○是

○否

B14.您参加过几次与小学（对幼儿教师）/幼儿园（对小学教师）共同开展的幼小衔接联合教研活动？

○1-2 次

○3-5 次

○5 次以上

C 结束部分

C1.关于儿童幼小衔接和入学准备，您有其他的意见看法吗？请在此填写。

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尊敬的老师，感谢您的认真填写！